

**Analytical Data Package Prepared For** 

# Fluor Hanford

Radiochemical Analysis By

## **TestAmerica TARL**

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains \_\_\_\_ Pages

Report Nbr: 39536

| SDG Nbr | ORDER Nbr | <b>CLIENT ID NUMBER</b> | LOT Nbr     | WORK ORDER      | RPT DB ID | BATCH   |
|---------|-----------|-------------------------|-------------|-----------------|-----------|---------|
| W05419  | 108-038   | B1V6L4                  | J8E230328-1 | KNTWQ1AA        | 9KNTWQ10  | 8164618 |
|         |           | B1V6L0                  | J8E230328-2 | KNTW61AA        | 9KNTW610  | 8164618 |
|         | W08-005   | B1V845                  | J8E280293-1 | KN1HA1AA        | 9KN1HA10  | 8164618 |
|         | 108-038   | B1V6B1                  | J8E280295-1 | KN1HP1AA        | 9KN1HP10  | 8164618 |
|         |           | B1V6B2                  | J8E280295-2 | KN1HQ1AA        | 9KN1HQ10  | 8164618 |
|         | 108-037   | B1V9W2                  | J8E280299-1 | KN1JT1AA        | 9KN1JT10  | 8164622 |
|         |           | B1V9W2                  | J8E280299-1 | KN1JT1AC        | 9KN1JT10  | 8164624 |
|         |           | B1V9W2                  | J8E280299-1 | KN1JT1AD        | 9KN1JT10  | 8164617 |
|         |           | B1V9W2                  | J8E280299-1 | KN1JT1AE        | 9KN1JT10  | 8164618 |
|         |           | B1V9W2                  | J8E280299-1 | KN1JT1AF        | 9KN1JT10  | 8164621 |
|         |           | B1V9W2                  | J8E280299-1 | <b>KN1JT1AG</b> | 9KN1JT10  | 8164623 |
|         |           | B1V9W3                  | J8E280299-2 | <b>KN1JX1AA</b> | 9KN1JX10  | 8164622 |
|         |           | B1V9W3                  | J8E280299-2 | KN1JX1AC        | 9KN1JX10  | 8164624 |
|         |           | B1V9W3                  | J8E280299-2 | KN1JX1AD        | 9KN1JX10  | 8164617 |
|         |           | B1V9W3                  | J8E280299-2 | KN1JX1AE        | 9KN1JX10  | 8164618 |

Comments:

# Report Nbr: 39536

| SDG Nbr | ORDER Nbr | CLIENT ID NUMBER | LOT Nbr     | WORK ORDER      | RPT DB ID | BATCH   |
|---------|-----------|------------------|-------------|-----------------|-----------|---------|
| W05419  | 108-037   | B1V9W3           | J8E280299-2 | KN1JX1AF        | 9KN1JX10  | 8164621 |
|         |           | B1V9W3           | J8E280299-2 | KN1JX1AG        | 9KN1JX10  | 8164623 |
|         |           | B1V680           | J8E280299-3 | KN1KG1AA        | 9KN1KG10  | 8164618 |
|         |           | B1V679           | J8E280299-4 | KN1KP1AA        | 9KN1KP10  | 8164618 |
|         |           | B1V687           | J8E280299-5 | KN1KX1AA        | 9KN1KX10  | 8164618 |
|         | 108-036   | B1V608           | J8E290299-1 | KN3T71AA        | 9KN3T710  | 8151262 |
|         | 108-035   | B1V5L1           | J8F020174-1 | KN78H1AA        | 9KN78H10  | 8154426 |
|         | 108-039   | <b>B1V6Y4</b>    | J8F030292-1 | KPAJ71AA        | 9KPAJ710  | 8155303 |
|         | 108-038   | <b>B1V6F5</b>    | J8F040162-1 | KPA601AA        | 9KPA6010  | 8164618 |
|         |           | <b>B1V6F6</b>    | J8F040162-2 | KPA641AA        | 9KPA6410  | 8164618 |
|         | W08-005   | B1V829           | J8F040165-1 | KPA7M1AA        | 9KPA7M10  | 8164618 |
|         | 108-035   | B1V5J7           | J8F040186-1 | KPCC51AA        | 9KPCC510  | 8155303 |
|         | S08-003   | B1TKC2           | J8F050162-1 | <b>KPEVW1AA</b> | 9KPEVW10  | 8164615 |
|         |           | B1TKC2           | J8F050162-1 | <b>KPEVW1AC</b> | 9KPEVW10  | 8164616 |
|         |           | B1TKC2           | J8F050162-1 | <b>KPEVW1AD</b> | 9KPEVW10  | 8164620 |
|         | 108-037   | B1V9T9           | J8F050164-1 | KPEV31AA        | 9KPEV310  | 8164622 |
|         |           | B1V9T9           | J8F050164-1 | KPEV31AC        | 9KPEV310  | 8164624 |
|         |           | B1V9T9           | J8F050164-1 | KPEV31AD        | 9KPEV310  | 8164617 |
|         |           | B1V9T9           | J8F050164-1 | KPEV31AE        | 9KPEV310  | 8164618 |
|         |           | B1V9T9           | J8F050164-1 | KPEV31AG        | 9KPEV310  | 8164623 |
|         |           | B1V9T9           | J8F050164-1 | KPEV32AF        | 9KPEV320  | 8192442 |
|         | S08-001   | B1RTP0           | J8F050177-1 | KPEX61AA        | 9KPEX610  | 8164615 |
|         |           | B1RTP0           | J8F050177-1 | KPEX61AC        | 9KPEX610  | 8164616 |
|         |           | B1RTP0           | J8F050177-1 | KPEX61AD        | 9KPEX610  | 8164617 |
|         |           | B1RTP0           | J8F050177-1 | KPEX61AE        | 9KPEX610  | 8164618 |
|         |           | B1RTP0           | J8F050177-1 | KPEX61AF        | 9KPEX610  | 8164619 |

Comments:



## Certificate of Analysis

Fluor Hanford 1200 Jadwin Ave. Richland, WA 99352

July 21, 2008

Attention: Steve Trent

SAF Number : I08-038, W08-005, I08-038, I08-037, I08-036,

I08-035, I08-039, S08-003, S08-001

Date SDG Closed : June 4, 2008
Number of Samples : Twenty (20)
Sample Type : Water
SDG Number : W05419

Data Deliverable : 45-Day / Summary

## **CASE NARRATIVE**

#### I. Introduction

Between May 23, 2008 and June 4, 2008 twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford specific IDs:

| PGW ID# | STLR ID# | DATE OF RECEIPT | MATRIX |
|---------|----------|-----------------|--------|
|         |          |                 | -      |
| B1V6L4  | KNTWQ    | 5/23/08         | WATER  |
| B1V6L0  | KNTW6    | 5/23/08         | WATER  |
| B1V845  | KN1HA    | 5/28/08         | WATER  |
| B1V6B1  | KN1HP    | 5/28/08         | WATER  |
| B1V6B2  | KN1HQ    | 5/28/08         | WATER  |
| B1V9W2  | KN1JT    | 5/28/08         | WATER  |
| B1V9W3  | KN1JX    | 5/28/08         | WATER  |
| B1V680  | KNIKG    | 5/28/08         | WATER  |
| B1V679  | KN1KP    | 5/28/08         | WATER  |
| B1V687  | KNIKX    | 5/28/08         | WATER  |
| B1V608  | KN3T7    | 5/29/08         | WATER  |
| B1V5L1  | KN78H    | 6/02/08         | WATER  |
| B1V6Y4  | KPAJ7    | 6/03/08         | WATER  |

| BIV6F5 | KPA60        | 6/03/08 | WATER |  |
|--------|--------------|---------|-------|--|
| B1V6F6 | KPA64        | 6/03/08 | WATER |  |
| B1V829 | KPA7M        | 6/03/08 | WATER |  |
| B1V5J7 | KPCC5        | 6/03/08 | WATER |  |
| B1TKC2 | <b>KPEVW</b> | 6/04/08 | WATER |  |
| B1V9T9 | KPEV3        | 6/04/08 | WATER |  |
| B1RTP0 | KPEX6        | 6/04/08 | WATER |  |
|        |              |         |       |  |

## II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

## III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy

Uranium 234, 235 and 238 by method RICH-RC-5039

Neptunium-237 by method RICH-RC-5009

**Gas Proportional Counting** 

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

Gamma Spec (LL) by method RICH-RC-5017

Iodine-129 (LL) by method RICH-RC-5025

**Liquid Scintillation Counting** 

Selenium-79 by method RICH-RC-5043

Carbon-14 by method RICH-RC-5022

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

**Chemical Analysis** 

Hexavalent Chromium by EPA method 7196A

## IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

#### V. Comments

#### Alpha Spectroscopy

Uranium 234, 235 and 238 by method RICH-RC-5039:

The LCS, batch blank, sample and sample duplicate (B1V9W2) results are within contractual requirements.

### Neptunium-237 by method RICH-RC-5009:

The LCS, batch blank, sample and sample duplicate (B1V9W3) results are within contractual requirements.

#### **Gas Proportional Counting**

Gross Alpha by method RICH-RC-5014:

Samples B1TKC2, B1RTP0 and B1TKC2 DUP were analyzed with reduce aliquots based on weight screens. Except as noted, the LCS, batch blank, samples and sample duplicate (B1TKC2) results are within contractual requirements.

#### Gross Beta by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1RTP0) results are within contractual requirements.

## Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1RTP0) results are within contractual requirements.

## Gamma Spectroscopy

## Gamma Spec (LL) by method RICH-RC-5017:

The LCS, batch blank, samples and sample duplicate (B1V9T9) results are within contractual requirements.

## Iodine-129 (LL) by method RICH-RC-5025:

The LCS, batch blank, samples and sample duplicate (B1V6L4) results are within contractual requirements.

## Fluor Hanford July 21, 2008

#### **Liquid Scintillation Counting**

Selenium-79 by method RICH-RC-5043:

Sample B1V9T9 had a low tracer yield and the CRDL was not met on the first analysis. Sample B1V9T9 was reanalyzed with acceptable results.

There is no LCS for selenium-79. Except as noted, the batch blank, samples and sample duplicate (B1V9W2) results are within contractual requirements.

#### Carbon-14 by method RICH-RC-5022:

The LCS, batch blank, samples and sample duplicate (B1V9W3) results are within contractual requirements.

#### **Total Uranium**

#### Total Uranium by method RICH-RC-5058:

The LCS, batch blank, samples, sample duplicate (B1TKC2), and sample matrix spike (B1TKC2) results are within contractual requirements.

### **Chemical Analysis**

#### Hexavalent Chromium by EPA method 7196A

#### Batch 8151262

The LCS, batch blank, samples, sample duplicate (B1V608), sample matrix spike (B1V608), and matrix spike duplicate (B1V608) results are within contractual requirements.

#### Batch 8154426

The LCS, batch blank, samples, sample duplicate (B1V5L1), sample matrix spike (B1V5L1), and matrix spike duplicate (B1V5L1) results are within contractual requirements.

#### Batch 8155503

The LCS, batch blank, samples, sample duplicate (B1V6Y4), sample matrix spike (B1V6Y4), and matrix spike duplicate (B1V6Y4) results are within contractual requirements.

Certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sandra Seger

Project Manager

## **Drinking Water Method Cross References**

|                   | DRINKING WATER ASTM METHOD CROSS REFERENCES |                               |  |  |  |  |  |  |  |  |
|-------------------|---|-------------------------------|--|--|--|--|--|--|--|--|
| Referenced Method | Isotope(s)                                  | TestAmerica Richland's SOP No |  |  |  |  |  |  |  |  |
| EPA 901.1         | Cs-134, I-131                               | RICH-RC-5017                  |  |  |  |  |  |  |  |  |
| EPA 900.0         | Alpha & Beta                                | RICH-RC-5014                  |  |  |  |  |  |  |  |  |
| EPA 00-02         | Gross Alpha (Coprecipitation)               | RICH-RC-5021                  |  |  |  |  |  |  |  |  |
| EPA 903.0         | Total Alpha Radium (Ra-226)                 | RICH-RC-5027                  |  |  |  |  |  |  |  |  |
| EPA 903.1         | Ra-226                                      | RICH-RC-5005                  |  |  |  |  |  |  |  |  |
| EPA 904.0         | Ra-228                                      | RICH-RC-5005                  |  |  |  |  |  |  |  |  |
| EPA 905.0         | Sr-89/90                                    | RICH-RC-5006                  |  |  |  |  |  |  |  |  |
| ASTM D5174        | Uranium                                     | RICH-RC-5058                  |  |  |  |  |  |  |  |  |
| EPA 906.0         | Tritium                                     | RICH-RC-5007                  |  |  |  |  |  |  |  |  |

## Results in this report relate only to the sample(s) analyzed.

## **Uncertainty Estimation**

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants \* f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u<sub>i</sub>) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u<sub>c</sub>) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

| Report Definitions  An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.  The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.  Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.  Chain of Custody Number assigned by the Client or TestAmerica. |
|---|
| Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.  |
|   |
| Chain of Custody Number assigned by the Client or TestAmerica.  |
| ,   |
| Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.   |
| All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, $u_c$ the combined uncertainty. The uncertainty is absolute and in the same units as the result.   |
| The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.  |
| Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)  |
| Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*YId*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.                                  |
| The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.   |
| Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.   |
| The instrument identifier associated with the analysis of the sample aliquot.   |
| The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.   |
| Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.  |
| Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.  |
| Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.   |
| The equation Replicate Error Ratio = $(S-D)/[sqrt(TPUs^2 + TPUd^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.  |
| Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.   |
| The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.   |
| The LIMS software assign test specific identifier.  |
| The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.   |
| Os T (n LaSbii Ts LvSL T Tl Rea Riiia SN Tsto S Ttl T   |

| 7/21/2008                     | 8 9:40:57 AM            |                    |                               |                   | T                        | estAme             | erica     | Repor                  | t                   |                           |                        |           | Lab Code: TARL                  |       |     |
|-------------------------------|-------------------------|--------------------|-------------------------------|-------------------|--------------------------|--------------------|-----------|------------------------|---------------------|---------------------------|------------------------|-----------|---------------------------------|-------|-----|
| FormNbr                       | : R                     | FormatType:        | FEAD Versi                    | ion: 05           | Rpt N                    | or: 39536          |           | File Name:             | h:\Reportdb\        | edd\FeadIV\Rad\W054       | 19.Edd, h:\Rep         | ortdb\ed  | dd\FeadIV\Rad\39                | 536.E | dd  |
| Lab<br>Sample Id:             | Client<br>ld:<br>B1V845 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb<br>W08-005 | Nbr:                     | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        |           | llection<br>Date:<br>2008 14:01 |       |     |
| Batch<br>3164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>1.73E-01            | Unit<br>pCi/L     | CntU 2S<br>1.6E-01       | TotU 2S<br>1.6E-01 | Qual<br>U | MDA<br>3.28E-01        | TrcYleld<br>91.4    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.8937E+00 | Unit<br>L | Analy Date/Tir<br>07/02/2008 1  |       | Act |
| Lab<br>Sample Id:<br>KN1HP10  | Client<br>Id:<br>B1V6B1 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb            | r Sdg<br>Nbr:<br>W05419  | QC<br>Тур          |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        |           | llection<br>Date:<br>2008 12:10 |       |     |
| Batch<br>3164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>1.17E-01            | Unit<br>pCi/L     | CntU 2S<br>1.6E-01       | TotU 2S<br>1.6E-01 | Qual<br>U | MDA<br>3.14E-01        | TrcYield<br>91.9    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.7568E+00 | Unit<br>L | Analy Date/Tir<br>07/02/2008 1  |       | Act |
| Lab<br>Sample Id:<br>SKN1HQ10 | Client<br>Id:<br>B1V6B2 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb            | or Sdg<br>Nbr:<br>W05419 | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        |           | llection<br>Date:<br>2008 12:10 |       |     |
| Batch<br>3164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>2.16E-01            |                   | CntU 2S<br>1.6E-01       | TotU 2S<br>1.6E-01 | Qual<br>U | MDA<br>3.34E-01        | TrcYield<br>93.2    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.7843E+00 | Unit<br>L | Analy Date/Tir<br>07/02/2008 1  |       | Act |
| Lab<br>Sample Id:<br>SKN1JT10 | Client<br>Id:<br>B1V9W2 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb            | or Sdg<br>Nbr:<br>W05419 | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        |           | llection<br>Date:<br>2008 09:57 |       |     |
| Batch<br>3164624              | Analyte<br>C-14         | CAS#<br>14762-75-5 | Result<br>5.32E+00            | Unit<br>pCi/L     | CntU 2S<br>3.6E+00       | TotU 2S<br>4.3E+00 | Qual      | MDA<br>8.18E+0         | TrcYleId            | Method<br>C14_LSC         | Alq Size<br>2.00E-01   | Unit      | Analy Date/Tin<br>06/23/2008 2  |       | Act |
| 3164617                       | BE-7                    | 13966-02-4         |                               |                   |                          | 1.6E+01            | U         | 2.82E+0                |                     | GAMMALL GS                | 2.00E+00               | L         | 06/20/2008                      |       |     |
| 3164617                       | CO-60                   | 10198-40-0         |                               | pCi/L             |                          | 1.2E+00            | U         | 2.35E+0                |                     | GAMMALL GS                | 2.00E+00               | L         | 06/20/2008 0                    |       |     |
| 3164617                       | CS-134                  | 13967-70-9         |                               | pCi/L             |                          | 1.6E+00            | U         | 2.99E+0                |                     | GAMMALL GS                | 2.00E+00               | L         | 06/20/2008 0                    | 7:42  | 1   |
| 3164617                       | CS-137                  | 10045-97-3         |                               | pCi/L             | 1.6E+00                  | 1.6E+00            | U         | 2.78E+0                | 0                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008 0                    | 7:42  | 1   |
| 3164617                       | EU-152                  | 14683-23-9         |                               | pCi/L             | 4.1E+00                  | 4.1E+00            | U         | 7.01E+0                | 0                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008 0                    | 7:42  | 1   |
| 3164617                       | EU-154                  | 15585-10-1         | 6.28E-01                      | pCl/L             | 4.0E+00                  | 4.0E+00            | U         | 7.81E+0                | 0                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008                      | 7:42  | 1   |
| 3164617                       | EU-155                  | 14391-16-3         | -2.96E-01                     | pCi/L             | 3.1E+00                  | 3.1E+00            | U         | 5.37E+0                | 0                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008 0                    | 7:42  | -1  |
| 3164617                       | K-40                    | 13966-00-2         | 1.28E+01                      | pCi/L             | 3.4E+01                  | 3.4E+01            | U         | 3.05E+0                | 1                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008                      | 7:42  | 1   |
| 3164617                       | RU-106                  | 13967-48-1         | -5.62E+00                     | pCi/L             | 1.3E+01                  | 1.3E+01            | U         | 2.17E+0                | 1                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008 0                    | 7:42  | -1  |
| 3164617                       | SB-125                  | 14234-35-6         | 7.77E-01                      | pCi/L             | 4.2E+00                  | 4.2E+00            | U         | 7.48E+0                | 0                   | GAMMALL_GS                | 2.00E+00               | L         | 06/20/2008 0                    | 7:42  | 1   |
| 3164618                       | I-129L                  | 15046-84-1         | 5.52E-01                      | pCi/L             | 3.2E-01                  | 3.2E-01            | U         | 4.14E-01               | 1 91.4              | I129LL_SEP_LEPS           | 3.8579E+00             | L         | 07/02/2008 2                    | 0:01  | 1   |
| 3164622                       | NP-237                  | 13994-20-2         | 4.16E-02                      | pCi/L             | 8.5E-02                  | 8.5E-02            | U         | 1.99E-01               | 1 88.4              | NP237_LLE_PLAT            | 2.00E-01               | L         | 06/26/2008 2                    | 0:06  | 1   |
| 3164621                       | Se-79                   | 15758-45-9         | 1.66E+00                      | pCi/L             | 4.7E+00                  | 9.3E+00            | U         | 1.12E+0                | 1 81.2              | SE79_SEP_IE_LS            | 2.00E-01               | L         | 07/03/2008 1                    | 8:15  | 1   |
| 3164623                       | U-234                   | 13966-29-5         | 1.19E+00                      | <b>pCVL</b>       | 3.8E-01                  | 4.2E-01            |           | 1.42E-01               | 1 99.3              | UISO_PLATE_AEA            | 2.0001E-01             | L         | 06/20/2008 1                    | 5:03  | - 1 |

**TestAmerica** 

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

|                               | 08 9:40:57 A            |                    |                               |                |                          | estAme             | eric | -                      |                     |                           |                |         | Lab Code: TAR                     |        |          |
|-------------------------------|-------------------------|--------------------|-------------------------------|----------------|--------------------------|--------------------|------|------------------------|---------------------|---------------------------|----------------|---------|-----------------------------------|--------|----------|
| FormNb                        | r: R                    | FormatType: F      | EAD Vers                      | ion: 05        | Rpt N                    | lbr: 39536         | **** | File Name:             | h:\Reportdb\        | edd\FeadIV\Rad\W054       | 19.Edd, h:\Rep | ortdb\e | dd\FeadIV\Rad\3                   | 9536.E | Edd      |
| 8164623                       | U-235                   | 15117-96-1         | -1.19E-02                     | pCi/L          | 6.2E-02                  | 6.2E-02            | U    | 1.68E-01               | 99.3                | UISO_PLATE_AEA            | 2.0001E-01     | L       | 06/20/2008                        | 15:03  | 3 1      |
| 8164623                       | U-238                   | U-238              | 7.55E-01                      | pCi/L          | 3.0E-01                  | 3.3E-01            |      | 1.88E-01               | 99.3                | UISO_PLATE_AEA            | 2.0001E-01     | , L     | 06/20/2008                        | 15:03  | 3 1      |
| Lab<br>Sample Id:<br>9KN1JX10 | Client<br>ld:<br>B1V9W3 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | <b>SAF N</b> I | br Sdg<br>Nbr:<br>W05419 |                    |      | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                |         | ollection<br>Date:<br>/2008 11:13 |        |          |
| Batch                         | Analyte                 | CAS#               | Result                        | Unit           | CntU 2S                  | TotU 2S            | Qua! | MDA                    | TrcYield            | Method                    | Alq Size       | Unit    | Analy Date/T                      | ime    | Ac       |
| 8164624                       | C-14                    | 14762-75-5         | -1.46E+00                     | pCi/L          | 3.3E+00                  | 4.0E+00            | U    | 8.18E+00               | 100.0               | C14_LSC                   | 2.00E-01       | L       | 06/23/2008                        | 22:57  | 7 1      |
| 8164617                       | BE-7                    | 13966-02-4         | -6.66E+00                     | pCi/L          | 1.6E+01                  | 1,6E+01            | U    | 2.62E+01               | 1                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2        |
| 8164617                       | CO-60                   | 10198-40-0         | -4.30E-01                     | pCi/L          | 1.8E+00                  | 1.8E+00            | U    | 3.26E+00               | )                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2 1      |
| 8164617                       | CS-134                  | 13967-70-9         | -6.93E-01                     | pCi/L          | 1.8E+00                  | 1.8E+00            | U    | 3.09E+00               | )                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2 1      |
| 8164617                       | CS-137                  | 10045-97-3         | 9.42E-01                      | pCi/L          | 1.9E+00                  | 1.9E+00            | U    | 3.47E+00               | )                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2 1      |
| 8164617                       | EU-152                  | 14683-23-9         | 2.62E+00                      | pCi/L          | 4.4E+00                  | 4.4E+00            | U    | 8.11E+00               | )                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2        |
| 8164617                       | EU-154                  | 15585-10-1         | -2.09E+00                     | pCi/L          | 5.1E+00                  | 5.1E+00            | U    | 8.86E+00               | )                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2        |
| 8164617                       | EU-155                  | 14391-16-3         | -2.63E+00                     | pCi/L          | 2.9E+00                  | 2.9E+00            | U    | 4.67E+00               | )                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | >        |
| 8164617                       | K-40                    | 13966-00-2         | -2.17E+01                     | pCi/L          | 4.2E+01                  | 4.2E+01            | U    | 8.20E+01               | 1                   | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | <u> </u> |
| 8164617                       | RU-106                  | 13967-48-1         | -7.78E+00                     | pCi/L          | 1.4E+01                  | 1.4E+01            | U    | 2.36E+01               |                     | GAMMALL_GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2        |
| 8164617                       | SB-125                  | 14234-35-6         | -9.66E-02                     | pCi/L          | 3.9E+00                  | 3.9E+00            | U    | 6.88E+00               | )                   | GAMMALL GS                | 2.0001E+00     | L       | 06/20/2008                        | 07:42  | 2        |
| 8164618                       | I-129L                  | 15046-84-1         | -6.73E-04                     | pCi/L          | 1.4E-01                  | 1.4E-01            | U    | 2.62E-01               | 93.8                | I129LL_SEP_LEPS           | 3.8846E+00     | L       | 07/02/2008                        | 20:03  | 3        |
| 8164622                       | NP-237                  | 13994-20-2         | 0.00E+00                      | pCi/L          | 7.1E-02                  | 7.1E-02            | U    | 1.66E-01               | 90.1                | NP237_LLE_PLAT            |                | L       | 06/26/2008                        | 20:06  | 3        |
| 8164621                       | Se-79                   | 15758-45-9         | -1.14E+00                     | pCi/L          | 4.5E+00                  | 8.8E+00            | U    | 1.09E+01               | 83.5                | SE79_SEP_IE_LS            | 1.999E-01      | L       | 07/03/2008                        | 20:00  | )        |
| 8164623                       | U-234                   | 13966-29-5         | 1.04E+00                      | pCi/L          | 3.6E-01                  | 4.0E-01            |      | 2.34E-01               | 100.2               | UISO_PLATE_AEA            |                | L       | 06/20/2008                        | 15:03  | 3 1      |
| 8164623                       | U-235                   | 15117-96-1         | 6.59E-02                      | pÇi/L          | 1.1E-01                  | 1.1E-01            | U    | 2.06E-01               | 100.2               | UISO_PLATE_AEA            | 2.0003E-01     | L       | 06/20/2008                        | 15:03  | 3 1      |
| 8164623                       | U-238                   | U-238              | 5.45E-01                      | pCi/L          | 2.7E-01                  | 2.8E-01            |      | 2.68E-01               | 100.2               | UISO_PLATE_AEA            | 2.0003E-01     | L       | 06/20/2008                        | 15:03  | 3 1      |
| Lab<br>Sample Id:<br>9KN1KG10 |                         | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF NI         | or Sdg<br>Nbr:<br>W05419 |                    |      | Moisture/<br>Solids%*: | Distilled<br>Volume | Sample<br>On Date:        | 1 22           |         | Date:                             | •      |          |
| Batch                         | Analyte                 | CAS#               | Result                        | Unit           | CntU 2S                  | TotU 2S            | Qual | MDA                    | TrcYield            | Method                    | Alg Size       | Unit    | Analy Date/Ti                     | ime    | A        |
| 8164618                       | I-129L                  | 15046-84-1         | 3.14E-02                      | pCi/L          | 1.2E-01                  | 1.2E-01            | U    | 2.36E-01               |                     | I129LL_SEP_LEPS           |                |         | 07/02/2008                        |        |          |
| Lab<br>Sample Id:<br>9KN1KP10 |                         | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | <b>SAF N</b> I | br Sdg<br>Nbr:<br>W05419 |                    |      | Moisture/<br>Solids%*: | Distilled<br>Volume | Sample<br>On Date:        |                |         | llection<br>Date:<br>/2008 13:18  |        |          |
| Batch<br>8164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>4.55E+00            | Unit<br>pCi/L  | CntU 2S<br>7.1E-01       | TotU 2S<br>7.1E-01 | Qual | MDA<br>3.31E-01        | TrcYield            | Method<br>I129LL_SEP_LEPS | Alq Size       | Unit    | Analy Date/Ti<br>07/02/2008       |        | A        |

**TestAmerica** 

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

| 7/21/200                      | 8 9:40:57 AM            | 1                  |                               |               | T                        | estAme             | rica      | Repor                  | t                   |                           |                        | 1         | Lab Code: TARL                      |    |
|-------------------------------|-------------------------|--------------------|-------------------------------|---------------|--------------------------|--------------------|-----------|------------------------|---------------------|---------------------------|------------------------|-----------|-------------------------------------|----|
| FormNbr                       | : R                     | FormatType:        | FEAD Vers                     | ion: 05       | Rpt N                    | br: 39536          |           | File Name:             | h:\Reportdb\        | edd\FeadIV\Rad\W054       | 19.Edd, h:\Rep         | ortdb\ec  | dd\FeadIV\Rad\39536.E               | dd |
| Lab<br>Sample Id:<br>9KN1KX10 | Client<br>Id:<br>B1V687 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb        | r Sdg<br>Nbr:<br>W05419  | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        | 1         | llection<br>Date:<br>2008 14:40     |    |
| Batch<br>8164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result -5.14E-02              | Unit<br>pCi/L | CntU 2S<br>1.4E-01       | TotU 2S<br>1.4E-01 | Qual      | MDA<br>2.40E-01        | TrcYield<br>94.9    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.8816E+00 | Unit<br>L | Analy Date/Time<br>07/02/2008 21:58 | Ac |
| Lab<br>Sample Id:<br>9KNTW610 | Client<br>Id:<br>B1V6L0 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb        | r Sdg<br>Nbr:<br>W05419  | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        | 1         | llection<br>Date:<br>2008 12:50     |    |
| Batch<br>8164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>-1.75E-02           | Unit<br>pCi/L | CntU 2S<br>1.5E-01       | TotU 2S<br>1.5E-01 | Qual<br>U | MDA<br>2.68E-01        | TrcYleid<br>92.2    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.8526E+00 | Unit<br>L | Analy Date/Time<br>07/02/2008 16:27 | Ac |
| Lab<br>Sample Id:<br>9KNTWQ10 | Client<br>Id:<br>B1V6L4 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb        | or Sdg<br>Nbr:<br>W05419 | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        | 1         | llection<br>Date:<br>2008 13:22     |    |
| Batch<br>8164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>1.55E-01            | Unit<br>pCi/L | CntU 2S<br>1.5E-01       | TotU 2S<br>1.5E-01 | Qual<br>U | MDA<br>3.05E-01        | TrcYield<br>99.5    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.8645E+00 | Unit      | Analy Date/Time<br>07/02/2008 16:27 | Ac |
| Lab<br>Sample Id:<br>9KPA6010 | Client<br>Id:<br>B1V6F5 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb        | Nbr:                     | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        | 1         | llection<br>Date:<br>2008 09:49     |    |
| Batch<br>8164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>9.78E-02            | Unit<br>pCi/L | CntU 28<br>1.1E-01       | TotU 2S<br>1.1E-01 | Qua!      | MDA<br>2.32E-01        | TrcYield<br>95.7    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.901E+00  | Unit<br>L | Analy Date/Time<br>07/02/2008 21:58 | Ac |
| Lab<br>Sample Id:<br>9KPA6410 | Client<br>Id:<br>B1V6F6 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb        | or Sdg<br>Nbr:<br>W05419 | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        | 1         | llection<br>Date:<br>2008 08:00     |    |
| Batch<br>8164618              | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>-4.94E-02           | Unit<br>pCi/L | CntU 2S<br>1.5E-01       | TotU 2S<br>1.5E-01 | Qual      | MDA<br>2.71E-01        | TrcYield<br>94.3    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.868E+00  | Unit<br>L | Analy Date/Time<br>07/03/2008 05:11 | Ac |
| Lab<br>Sample Id:<br>9KPA7M10 | Client<br>Id:<br>B1V829 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nb        | Nbr:                     | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume | · ·                       |                        | 1         | liection<br>Date:<br>2008 12:56     |    |
| <b>Batch</b><br>8164618       | Analyte<br>I-129L       | CAS#<br>15046-84-1 | Result<br>4.90E-01            | Unit<br>pCi/L | CntU 2S<br>2.9E-01       | TotU 2S<br>2.9E-01 | Qual      | MDA<br>3.66E-01        | TrcYield<br>93.2    | Method<br>I129LL_SEP_LEPS | Alq Size<br>3.9115E+00 | Unit<br>L | Analy Date/Time<br>07/03/2008 05:12 | Ac |
| Lab<br>Sample Id:<br>9KPEV310 | Client<br>Id:<br>B1V9T9 | Test<br>User       | Contract<br>Nbr<br>MW6-SBB-A1 | SAF No.       | or Sdg<br>Nbr:<br>W05419 | QC<br>Type         |           | Moisture/<br>Solids%*: | Distilled<br>Volume |                           |                        |           | llection<br>Date:<br>2008 09:30     |    |
| Batch<br>8164624              | Analyte<br>C-14         | CAS#<br>14762-75-5 | Result                        |               | CntU 2S<br>3.5E+00       | TotU 2S<br>4.2E+00 | Qual      | MDA<br>8.18E+00        | TrcYield            | Method<br>C14_LSC         | Alq Size<br>2.00E-01   | Unit<br>L | Analy Date/Time<br>06/24/2008 00:23 | Ac |
| TestAmeric                    | a                       |                    | II Qual -                     | Analyzed      | for, but th              | e result is        | less t    | han the Mde            | c or gamm           | a scan did not ident      | ify the nucli          | de.       |                                     | 2  |

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

| 7/21/200                      | 8 9:40:57 A   | M             |                               |                   | T              | estAme            | rica | a Repor                | t                   |                     |                | ı        | ab Code: TAR                   | lL.    |       |
|-------------------------------|---------------|---------------|-------------------------------|-------------------|----------------|-------------------|------|------------------------|---------------------|---------------------|----------------|----------|--------------------------------|--------|-------|
| FormNb                        | r: R          | FormatType: F | EAD Versi                     | on: 05            | Rpt N          | <b>br</b> : 39536 |      | File Name: I           | :\Reportdb\         | edd\FeadIV\Rad\W054 | 19.Edd, h:\Rep | ortdb\ed | d\FeadIV\Rad\3                 | 9536.E | dd    |
| 8164617                       | BE-7          | 13966-02-4    | 7.60E+00                      | pCi/L             | 9.0E+00        | 9.0E+00           | U    | 1.72E+01               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  | · ·   |
| 8164617                       | CO-60         | 10198-40-0    | 7.65E-01                      | pCi/L             | 1.3E+00        | 1.3E+00           | U    | 2.57E+00               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  |       |
| 8164617                       | CS-134        | 13967-70-9    | -9.17E-02                     | pCi/L             | 1.2E+00        | 1.2E+00           | U    | 2.11E+00               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  |       |
| 8164617                       | CS-137        | 10045-97-3    | 1.60E-02                      | pCi/L             | 1.1E+00        | 1.1E+00           | U    | 1.92E+00               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  |       |
| 8164617                       | EU-152        | 14683-23-9    | -4.15E-01                     | pCi/L             | 2.6E+00        | 2.6E+00           | U    | 4.56E+00               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  |       |
| 8164617                       | EU-154        | 15585-10-1    | 3.10E-01                      | pCi/L             | 3.2E+00        | 3.2E+00           | U    | 6.03E+00               |                     | GAMMALL_GS          | 1.951E+00      | Ĺ        | 06/20/2008                     | 07:43  |       |
| 8164617                       | EU-155        | 14391-16-3    | 1.21E+00                      | pCi/L             | 2.5E+00        | 2.5E+00           | U    | 4.59E+00               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  |       |
| 8164617                       | K-40          | 13966-00-2    | -1.17E+01                     | pCi/L             | 2.5E+01        | 2.5E+01           | U    | 4.86E+01               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  | 1     |
| 8164617                       | <b>RU-106</b> | 13967-48-1    | 4.23E+00                      | pCi/L             | 9.9E+00        | 9.9E+00           | U    | 1.85E+01               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  | -     |
| 8164617                       | SB-125        | 14234-35-6    | -9.73E-01                     | pCi/L             | 2.6E+00        | 2.6E+00           | U    | 4.51E+00               |                     | GAMMALL_GS          | 1.951E+00      | L        | 06/20/2008                     | 07:43  | -     |
| 8164618                       | I-129L        | 15046-84-1    | 3.19E-01                      | pCi/L             | 1.9E-01        | 1.9E-01           | U    | 3.92E-01               | 93.0                | I129LL_SEP_LEPS     | 3.8632E+00     | L        | 07/03/2008                     | 05:13  |       |
| 8164622                       | NP-237        | 13994-20-2    | 0.00E+00                      | pCi/L             | 8.7E-02        | 8.7E-02           | U    | 2.04E-01               | 87.0                | NP237_LLE_PLAT      | 2.002E-01      | L        | 06/26/2008                     | 20:07  |       |
| 8164623                       | U-234         | 13966-29-5    | 7.48E-01                      | pCi/L             | 3.1E-01        | 3.4E-01           |      | 2.78E-01               | 102.9               | UISO_PLATE_AEA      | 2.0003E-01     | Ł        | 06/20/2008                     | 15:03  |       |
| 8164623                       | U-235         | 15117-96-1    | 1.14E-01                      | pCi/L             | 1.2E-01        | 1.2E-01           | U    | 1.43E-01               | 102.9               | UISO_PLATE_AEA      | 2.0003E-01     | L        | 06/20/2008                     | 15:03  |       |
| 8164623                       | U-238         | U-238         | 4.01E-01                      | pCi/L             | 2.2E-01        | 2.3E-01           |      | 1.89E-01               | 102.9               | UISO_PLATE_AEA      | 2.0003E-01     | L        | 06/20/2008                     | 15:03  | - 1   |
| Lab<br>Sample Id:             | Client<br>Id: | Test<br>User  | Contract<br>Nbr               | SAF NE            | or Sdg<br>Nbr: | QC<br>Type        |      | Moisture/<br>Solids%*: | Distilled<br>Volume | Sample<br>On Date:  |                |          | lection<br>Date:               |        |       |
| 9KPEV320                      | B1V9T9        |               | MW6-SBB-A1                    | 108-037           | W05419         | 9                 |      |                        |                     |                     |                | 06/04/2  | 2008 09:30                     |        |       |
| Batch                         | Analyte       | CAS#          | Result                        | Unit              | CntU 2S        | TotU 2S           | Qual |                        | TrcYield            | Method              | Alq Size       | Unit     | Analy Date/1                   |        | A     |
| 8192442                       | Se-79         | 15758-45-9    | -3.14E+00                     | pCi/L             | 4.7E+00        | 9.1E+00           | U    | 1.18E+01               | 75.2                | SE79_SEP_IE_LS      | 2.00E-01       | L        | 07/17/2008                     | 01:06  | _ !   |
| Lab<br>Sample Id:<br>9KPEVW10 |               | Test<br>User  | Contract<br>Nbr<br>MW6-SBB-A1 | SAF Nt<br>S08-003 | Nbr:           |                   |      | Moisture/<br>Solids%*: | Distilled<br>Volume | Sample<br>On Date:  |                |          | lection<br>Date:<br>2008 13:19 |        |       |
| Batch                         | Analyte       | CAS#          | Result                        | Unit              | CntU 2S        | TotU 2S           | Qual | MDA                    | TrcYield            | Method              | Alg Size       | Unit     | Analy Date/1                   | ima    | A     |
| 8164615                       | ALPHA         | 12587-46-1    | 5.93E+00                      | pCi/L             | 1.8E+00        | 2.3E+00           | Qual | 1.70E+00               |                     | 9310 ALPHABETA      |                | L        | 06/26/2008                     |        |       |
| 8164616                       | BETA          | 12587-47-2    | 1.43E+01                      | pCi/L             | 2.2E+00        | 3.0E+00           |      | 2.89E+00               |                     | 9310 ALPHABETA      |                | L        | 06/26/2008                     |        |       |
| 8164620                       | Uranium       | 7440-61-1     | 1.23E+01                      | ug/L              | 1.4E+00        | 1.4E+00           |      | 8.35E-02               |                     | UTOT_KPA            | 2.51E-02       | ML       | 07/15/2008                     |        |       |
| Lab<br>Sample Id:             | Client<br>Id: | Test<br>User  | Contract<br>Nbr               | SAF N             | or Sdg<br>Nbr: | QC<br>Type        |      | Moisture/<br>Solids%*: | Distilled<br>Volume | Sample<br>On Date:  |                |          | lection<br>Date:               |        | Heat. |
| 9KPEX610                      | B1RTP0        |               | MW6-SBB-A1                    | S08-001           | W05419         | 9                 |      |                        |                     |                     |                | 06/04/2  | 2008 11:17                     |        |       |
| Batch                         | Analyte       | CAS#          | Result                        | Unit              | CntU 2S        | TotU 2S           | Qual |                        | TrcYield            | Method              | Alq Size       | Unit     | Analy Date/1                   |        | A     |
| 8164615                       | ALPHA         | 12587-46-1    | 5.79E-01                      | pCi/L             | 7.6E-01        | 7.6E-01           | U    | 1.33E+00               |                     | 9310_ALPHABETA      |                | L        | 06/26/2008                     |        |       |
| 8164616                       | BETA          | 12587-47-2    | 5.67E+00                      | pCi/L             | 1.7E+00        | 1.8E+00           |      | 2.91E+00               | 100.0               | 9310_ALPHABETA      | 2.003E-01      | L        | 06/26/2008                     | 19:08  | - 1   |

TestAmerica

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

| 7/21/200 | 08 9:40:57 A  | IM              |           |        | T       | estAme    | rica | Report             |                           |                   | La     | b Code: TAR  | L      |    |
|----------|---------------|-----------------|-----------|--------|---------|-----------|------|--------------------|---------------------------|-------------------|--------|--------------|--------|----|
| FormNb   | r: R          | FormatType: FEA | D Versio  | on: 05 | Rpt N   | br: 39536 | -    | File Name: h:\Repo | ortdb\edd\FeadIV\Rad\W054 | 19.Edd, h:\Report | db\edd | FeadIV\Rad\3 | 9536.E | bt |
| 8164617  | 8E-7          | 13966-02-4      | 2.04E+00  | pCi/L  | 1.4E+01 | 1.4E+01   | U    | 2.60E+01           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  | -  |
| 3164617  | CO-60         | 10198-40-0      | -1.08E+00 | pCi/L  | 1.6E+00 | 1.6E+00   | U    | 2.73E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 3164617  | CS-134        | 13967-70-9      | 2.01E-01  | pCi/L  | 1.6E+00 | 1.6E+00   | U    | 2.95E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 3164617  | CS-137        | 10045-97-3      | -1.82E-01 | pCi/L  | 1.5E+00 | 1.5E+00   | U    | 2.69E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 3164617  | EU-152        | 14683-23-9      | -8.23E-01 | pCi/L  | 3.9E+00 | 3.9E+00   | U    | 6.71E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 3164617  | EU-154        | 15585-10-1      | -3.30E+00 | pCi/L  | 4.5E+00 | 4.5E+00   | U    | 7.33E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 3164617  | EU-155        | 14391-16-3      | -2.18E+00 | pCi/L  | 3.2E+00 | 3.2E+00   | U    | 5.07E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 8164617  | K-40          | 13966-00-2      | 4.03E+01  | pCi/L  | 3.7E+01 | 3.7E+01   |      | 2.66E+01           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 8164617  | <b>RU-106</b> | 13967-48-1      | -7.01E-01 | pCi/L  | 1.3E+01 | 1.3E+01   | U    | 2.39E+01           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 8164617  | SB-125        | 14234-35-6      | 2.13E+00  | pCi/L  | 3.9E+00 | 3.9E+00   | U    | 7.31E+00           | GAMMALL_GS                | 2.0009E+00        | L      | 06/20/2008   | 07:44  |    |
| 3164618  | I-129L        | 15046-84-1      | 3.12E-01  | pCi/L  | 1.5E-01 | 1.5E-01   | U    | 3.34E-01 93.8      | I129LL_SEP_LEPS           | 3.8938E+00        | L      | 07/03/2008   | 06:57  |    |
| 3164619  | SR-90         | 10098-97-2      | 3.21E-01  | pCi/L  | 3.1E-01 | 3.3E-01   | U    | 6.72E-01 84.2      | SRISO_SEP_PRE             | 1.0001E+00        | L      | 07/03/2008   | 05:39  |    |

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide. J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL). B Qual- Analyte was found in the associated laboratory blank above the MDC.

| Monday,                               | FormNbr: R FormatType: FEAI            |                                 |                          |            | TestAmerica QC Blank Report  VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W0 |                                |         |                    |                  |                              |                                     |  | Lab Code: TARL 5419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd |             |               |                  |  |
|---------------------------------------|--|---------------------------------|--------------------------|------------|--|--------------------------------|---------|--------------------|------------------|------------------------------|-------------------------------------|--|---|-------------|---------------|------------------|--|
| Clie                                  | Sample Id:<br>nt Id:<br>sture/Solids%  | KPVM01A<br>NA<br>o*:            | В                        |            | ı  | Sdg/Rep<br>Matrix:<br>QC Type: |         | W054<br>WAT<br>BLK |                  | 39536<br>WATER               | Samp                                | tion Date:<br>le On Date:<br>ved Date:       |   | 2008 1      | 1:17          |                  |  |
| SAF                                   |  | ntract Nbr<br>-SBB-A19981       | The second second School | l'est User | Case   | Nbr :                          | SAS Nbi |                    | Suffix           | Decant                       | Distilled Volume                    | File   | e Id  |             | FSuffix F     | RTyp<br>H        |  |
| Batch #/<br>Qc Type<br>8164619<br>BLK | Analyt/<br>CAS#<br>SR-90<br>10098-97-2 | Result/<br>Orig Rst<br>4.16E-02 | Unit<br>pCi/L            |            | Qu-<br>al<br>U   | MDC<br>4.47E-0                 | Y       | acer<br>ield       | Spk Cond<br>%Rec | Analy<br>Method<br>SRISO_SEP | Aliq<br>Size/<br>_P 1.0007E+00<br>L | Date/Time<br>Analyzed<br>07/03/2008<br>05:39 | RPD/<br>UCL   | RER/<br>UCL | LCS<br>LCL/UC | R<br>CL Typ<br>D |  |

Monday, July 21, 2008 TestAmerica QC Blank Report Lab Code: TARL FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd FormNbr: R KPVM11AB Sdg/Rept Nbr: W05419 39536 Collection Date: 06/04/2008 13:19 Lab Sample Id: NA Matrix: WATER WATER Sample On Date: Client Id: Moisture/Solids%\*: QC Type: BLK Received Date: 06/04/2008 SAF Nbr **Contract Nbr Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp MW6-SBB-A19981 BE Н Result/ Spk Conc/ Date/Time RPD/ RER/ LCS Tot/Cnt Qu-Tracer Analy Alia Batch # / Analyt/ CAS# **Orig Rst** Uncert 2S al MDC Yield %Rec Method Size/ Analyzed UCL UCL LCL/UCL Typ Qc Type Unit UTOT\_KPA 2.51E-02 8164620 Uranium 0.00E+00 ua/L 0.0E+00 8.35E-02 07/15/2008 D 0.0E+00 ML BLK 7440-61-1 15:23

BLK

Se-79

15758-45-9

Lab Code: TARL Monday, July 21, 2008 TestAmerica QC Blank Report File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd FormatType: FEAD VersionNbr: 05 FormNbr: R 39536 Collection Date: 05/27/2008 09:57 KPVM21AB Sdg/Rept Nbr: W05419 Lab Sample Id: NA Matrix: WATER WATER Sample On Date: Client Id: 05/28/2008 BLK Moisture/Solids%\*: QC Type: Received Date: SAF Nbr **Contract Nbr Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp BH H MW6-SBB-A19981 Result Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS R Batch #/ Analyt/ UCL LCL/UCL Typ Size/ UCL CAS# Orig Rst **Uncert 2S** al MDC Yield %Rec Method Analyzed Qc Type

1.07E+01 85.2

SE79 SEP IE

2.002E-01

07/03/2008

21:46

D

3

-2.57E+00

pCi/L

8.5E+00

4.3E+00

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

|    |                                       | July 21, 2008 FormNbr: R                |                                 | 4T            | Smar FEAD                                  |                |  |       | a QC Bl         |                 | -                             |                              |  |                | b Code:     |               |             |
|----|---------------------------------------|---|---------------------------------|---------------|--|----------------|--|-------|-----------------|-----------------|-------------------------------|------------------------------|--|----------------|-------------|---------------|-------------|
| Į. | Lab<br>Clier                          | Sample Id: nt Id: sture/Solids%         | KPVM31A<br>NA                   |               | ype: FEAD                                  | S              | VersionNbr:<br>Sdg/Rept I<br>Matrix:<br>QC Type: |       | W05419<br>WATER | 3               | 39536<br>WATER                | Samp                         | tion Date:<br>le On Date:                    | 05/27/         | 2008 1      |               | 3.Edd       |
|    | SAF                                   | Nbr Cor                                 | ntract Nbr<br>-SBB-A19981       | 7             | Test User                                  | Case           |  | S Nbi |                 | fix             | Decant                        | Distilled Volume             | ved Date:                                    | 05/28/<br>e Id | 2008        | FSuffix<br>Bl | RTyp<br>H   |
| C  | latch # /<br>lc Type<br>164622<br>BLK | Analyt/<br>CAS#<br>NP-237<br>13994-20-2 | Result/<br>Orig Rst<br>0.00E+00 | Unit<br>pCi/L | Tot/Cnt<br>Uncert 2S<br>7.4E-02<br>7.4E-02 | Qu-<br>al<br>U | MDC<br>1.73E-01                                  | -     | eld             | k Conc/<br>%Rec | Analy<br>Method<br>NP237_LLE_ | Aliq<br>Size/<br>P 2.001E-01 | Date/Time<br>Analyzed<br>06/26/2008<br>20:07 | RPD/<br>UCL    | RER/<br>UCL | LCL/U         | R<br>CL Tyl |

1.0E-01

BLK

U-238

15:04

Monday, July 21, 2008 TestAmerica QC Blank Report Lab Code: TARL File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd FormNbr: R FormatType: FEAD VersionNbr: 05 Lab Sample Id: KPVM51AB Sdg/Rept Nbr: W05419 39536 Collection Date: 05/27/2008 11:13 Client Id: NA Matrix: WATER WATER Sample On Date: Moisture/Solids%\*: QC Type: BLK **Received Date:** 05/28/2008

| SAF                  |                    | ntract Nbr<br>6-SBB-A19981 | 1     | est User             | Case | Nbr SA   | S Nbr           | Suffix            | Decant          | Distilled Volume | File                  | bld         |             | FSuffix R<br>BM | <b>РТур</b><br>Н |
|----------------------|--------------------|----------------------------|-------|----------------------|------|----------|-----------------|-------------------|-----------------|------------------|-----------------------|-------------|-------------|-----------------|------------------|
| Batch # /<br>Qc Type | Analyt/<br>CAS#    | Result/<br>Orig Rst        | Unit  | Tot/Cnt<br>Uncert 2S | Qu-  | MDC      | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCE/UCL         | R<br>L Typ       |
| 8164624<br>BLK       | C-14<br>14762-75-5 | 2.42E+00                   | pCi/L | 4.1E+00<br>3.5E+00   | U    | 8.18E+00 | 100.0           |                   | C14_LSC         | 2.00E-01<br>L    | 06/23/2008<br>20:49   |             |             |                 | D                |

| Monday.              | July 21, 2008       |                           |         |                      |           | <b>FestA</b> r | neric  | a QC         | Blank    | Report               |                  |                       | La          | b Code:     | TARL          |             |
|----------------------|---------------------|---------------------------|---------|----------------------|-----------|----------------|--------|--------------|----------|----------------------|------------------|-----------------------|-------------|-------------|---------------|-------------|
|                      | FormNbr: R          | 23 mm di america da 1     | FormatT | ype: FEAD            |           | VersionN       | or: 05 |              | File Nam | e: h:\Reportdb\edd\F | eadIV\Rad\W054   | 19.Edd, h:\Repo       | ortdb\edd\  | FeadIV      | Rad\39536     | 6.Edd       |
| Lab                  | Sample Id:          | KPVMT1A                   | В       |                      | 5         | Sdg/Rep        | t Nbr: | W054         | 19       | 39536                | Collec           | ction Date:           | 06/04/      | 2008 1      | 3:19          |             |
| Clie                 | nt ld:              | NA                        |         |                      |           | Matrix:        |        | WATE         | R        | WATER                | Samp             | le On Date:           |             |             |               |             |
| Mois                 | sture/Solids%       | <b>5*</b> :               |         |                      | (         | C Type         | :      | BLK          |          |                      | Recei            | ved Date:             | 06/04/      | 2008        |               |             |
| SAF                  |                     | ntract Nbr<br>-SBB-A19981 | 1       | Test User            | Case      | Nbr            | SAS Nb |              | Suffix   | Decant               | Distilled Volume | File                  | e ld        |             | FSuffix<br>BO | RTyp<br>H   |
| Batch # /<br>Qc Type | Analyt/<br>CAS#     | Result/<br>Orig Rst       | Unit    | Tot/Cnt<br>Uncert 2S | Qu-<br>al | MDC            |        | acer<br>ield | Spk Conc | Analy<br>Method      | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS<br>LCL/UC | R<br>CL Typ |
| 8164615<br>BLK       | ALPHA<br>12587-46-1 | -9.34E-02                 | pCi/L   | 1.2E-01<br>1.2E-01   | U         | 4.65E-0        | 1 100  | .0           |          | 9310_ALPHAI          | B 2.002E-01<br>L | 06/26/2008<br>16:27   |             |             |               | D           |

| Monday,              | July 21, 2008      |                           |        |                      | ,    | TestAm                | erica      | QC   | Blank     | Report               |                  |                       | La          | b Code:     | TARL          |            |
|----------------------|--------------------|---------------------------|--------|----------------------|------|-----------------------|------------|------|-----------|----------------------|------------------|-----------------------|-------------|-------------|---------------|------------|
|                      | FormNbr: R         | F                         | ormatT | ype: FEAD            |      | VersionNbr.           | 05         |      | File Name | e: h:\Reportdb\edd\F | eadIV\Rad\W054   | 19.Edd, h:\Rep        | ortdb\edd\  | FeadIV      | Rad\39536     | Edd        |
|                      | Sample Id:         | KPVMV1A                   | В      |                      |      | Sdg/Rept i<br>Matrix: |            | W054 |           | 39536<br>WATER       |                  | tion Date:            | 06/04/      | 2008 1      | 1:17          |            |
| Mois                 | sture/Solids%      | <b>*</b> :                |        |                      | 0    | QC Type:              |            | BLK  |           |                      | •                | ved Date:             | 06/04/      | 2008        |               |            |
| SAF                  |                    | ntract Nbr<br>-SBB-A19981 | 1      | lest User            | Case | Nbr SA                | S Nbr      |      | Suffix    | Decant               | Distilled Volume | File                  | e Id        |             | FSuffix F     | ₹Тур<br>Н  |
| Batch # /<br>Qc Type | Analyt/<br>CAS#    | Result/<br>Orig Rst       | Unit   | Tot/Cnt<br>Uncert 2S | Qu-  | MDC                   | Tra<br>Yie |      | Spk Conc. | Analy<br>Method      | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS<br>LCL/UC | R<br>L Typ |
| 8164616<br>BLK       | BETA<br>12587-47-2 | 5.44E-01                  | pCi/L  | 1.0E+00<br>1.0E+00   | U    | 2.22E+00              | 100.0      | 0    |           | 9310_ALPHA           | B 2.002E-01<br>L | 06/26/2008<br>19:09   |             |             |               | D          |

TestAmerica QC Blank Report Monday, July 21, 2008

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\W05419.Edd, h:\Reportdb\edd\Fead\V\Rad\39536.Edd

Lab Sample Id:

Client Id:

KPVMW1AB

NA

Matrix:

Sdg/Rept Nbr: W05419 WATER 39536 WATER Collection Date: 06/04/2008 09:30

Sample On Date:

Moisture/Solids%\*:

QC Type:

BLK

Received Date:

06/04/2008

| SAF                  |                    | Contract Nbr<br>IW6-SBB-A19981 | 1     | est User             | Case | Nbr :   | SAS Nbr         | Suffix            | Decant D        | istilled Volume | File                  | ld          |             | FSuffix R<br>BS | <b>Тур</b><br>Н |
|----------------------|--------------------|--------------------------------|-------|----------------------|------|---------|-----------------|-------------------|-----------------|-----------------|-----------------------|-------------|-------------|-----------------|-----------------|
| Batch # /<br>Qc Type | Analyt/<br>CAS#    | Result/<br>Orig Rst            | Unit  | Tot/Cnt<br>Uncert 2S | Qu-  | MDC     | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/   | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS<br>LCL/UC   | R<br>L Typ      |
| 8164617<br>BLK       | BE-7<br>13966-02-  | -4.19E+00                      | pCi/L | 1.2E+01<br>1.2E+01   | U    | 2.03E+0 | 1               |                   | GAMMALL_GS      | 2.00E+00<br>L   | 06/20/2008<br>07:45   |             |             |                 | D               |
| 8164617<br>BLK       | CO-60<br>10198-40- | -6.44E-01                      | pCi/L | 1.3E+00<br>1.3E+00   | U    | 2.18E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00<br>L   | 06/20/2008<br>07:45   |             |             |                 | D               |
| 8164617<br>BLK       |                    | -1.06E+00                      | pCi/L | 1.4E+00<br>1.4E+00   | U    | 2.28E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00<br>L   | 06/20/2008<br>07:45   |             |             |                 | D               |
| 8164617<br>BLK       |                    | -5.84E-01                      | pCi/L | 1.3E+00<br>1.3E+00   | U    | 2.25E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008<br>07:45   |             |             |                 | D               |
| 8164617<br>BLK       |                    | 7.03E-01                       | pCi/L | 3.5E+00<br>3.5E+00   | U    | 6.12E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008<br>07:45   |             |             |                 | D               |
| 8164617<br>BLK       |                    | -3.66E+00                      | pCi/L | 3.5E+00<br>3.5E+00   | U    | 5.51E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008            |             |             |                 | D               |
| 8164617<br>BLK       |                    | -5.77E-01                      | pCi/L | 2.8E+00<br>2.8E+00   | U    | 4.83E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008            |             |             |                 | D               |
| 8164617              |                    | -2.87E+01                      | pCi/L | 2.0E+01<br>2.0E+01   | U    | 3.54E+0 | 1               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008            |             |             |                 | D               |
| BLK<br>8164617       | RU-106             | -9.28E+00                      | pCi/L | 1.1E+01              | U    | 1.80E+0 | 1               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008<br>07:45   |             |             |                 | D               |
| 8164617              |                    | 5.77E-01                       | pCi/L | 1.1E+01<br>3.3E+00   | U    | 5.87E+0 | 0               |                   | GAMMALL_GS      | 2.00E+00        | 06/20/2008            |             |             |                 | D               |
| BLK                  | 14234-35-          | ·6                             |       | 3.3E+00              |      |         |                 |                   |                 | L               | 07:45                 |             |             |                 |                 |

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

| Monday,             | July 21, 2008       |                           |        |                      | 7    | <b>FestAme</b> | erica | QC   | Blank             | Report               |                  |                       | La          | b Code:     | TARL          |             |
|---------------------|---------------------|---------------------------|--------|----------------------|------|----------------|-------|------|-------------------|----------------------|------------------|-----------------------|-------------|-------------|---------------|-------------|
|                     | FormNbr: R          | F                         | ormatT | ype: FEAD            |      | VersionNbr:    | 05    |      | File Name         | e: h:\Reportdb\edd\F | ead/V/Rad\W0541  | 9.Edd, h:\Repo        | ortdb\edd\  | FeadIV      | Rad\3953      | 6.Edd       |
| Lab                 | Sample Id:          | KRCQM1A                   | В      |                      | S    | dg/Rept N      | lbr:  | W054 | 19 ;              | 39536                | Collec           | tion Date:            | 06/04/      | 2008 0      | 9:30          |             |
| Clier               | nt ld:              | NA                        |        |                      | N    | latrix:        |       | WATE | R                 | WATER                | Samp             | le On Date:           |             |             |               |             |
| Mois                | sture/Solids%       | *:                        |        |                      | C    | C Type:        |       | BLK  |                   |                      | Receiv           | ed Date:              | 06/04/      | 2008        |               |             |
| SAF                 |                     | ntract Nbr<br>-SBB-A19981 | 1      | est User             | Case | Nbr SA         | S Nbr |      | Suffix            | Decant               | Distilled Volume | File                  | e id        |             | FSuffix<br>BW | RTyp<br>H   |
| Batch #/<br>Qc Type | Analyt/<br>CAS#     | Result/<br>Orig Rst       | Unit   | Tot/Cnt<br>Uncert 2S | Qu-  | MDC            | Trac  |      | Spk Conc.<br>%Rec | / Analy<br>Method    | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS/U         | R<br>CL Typ |
| 8192442<br>BLK      | Se-79<br>15758-45-9 | -1.22E-01                 | pCi/L  | 7.3E+00<br>3.8E+00   | U    | 9.13E+00       | 96.8  |      |                   | SE79_SEP_I           | 2.002E-01<br>L   | 07/17/2008<br>01:59   |             |             |               | D           |

Monday, July 21, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

Lab Code: TARL TestAmerica QC Control Sample Report Monday, July 21, 2008 FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd FormNbr: R KPVM11CS 39536 Sdg/Rept Nbr: W05419 Collection Date: 06/04/2008 13:19 Lab Sample Id: WATER WATER Client Id: NA Matrix: Sample On Date: BS Moisture/Solids%\*: QC Type: **Received Date:** 06/04/2008 **Test User** SAS Nbr Suffix **Distilled Volume** File Id SAF Nbr **Contract Nbr** Case Nbr Decant

|                      | MW              | 6-SBB-A19981        |      |                      |     |          |                 |                   |                 |               |                       |             |             | BF  | H          |
|----------------------|-----------------|---------------------|------|----------------------|-----|----------|-----------------|-------------------|-----------------|---------------|-----------------------|-------------|-------------|-----|------------|
| Batch # /<br>Qc Type | Analyt/<br>CAS# | Result/<br>Orig Rst | Unit | Tot/Cnt<br>Uncert 2S | Qu- | MDC      | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/ | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS | R<br>L Typ |
| 8164620              | Uranium         | 3.44E+01            | ug/L | 4.1E+00              |     | 8.32E-02 |                 | 3.58E+01          | UTOT_KPA        | 2.52E-02      | 07/15/2008            |             |             | 70  | D          |
| BS                   | 7440-61-1       |                     |      | 4.1E+00              |     |          |                 | 96.1              |                 | ML            | 15:29                 |             |             | 130 |            |

FSuffix RTyp

| Mond                              | FormNbr: R                                    |                                 | ormatType: |        |        | ica QC   | Con          |                                       | nple Repor                  | ⁺ <b>t</b><br>\FeadIV\Rad\W0541 | O Edd bi\Poo                                 | ,        |             | TARL                       |                 |
|-----------------------------------|---|---------------------------------|------------|--------|--------|----------|--------------|---------------------------------------|-----------------------------|---------------------------------|--|----------|-------------|----------------------------|-----------------|
| CI                                | ab Sample Id:<br>lient Id:<br>oisture/Solids' | KPVM11DS<br>NA                  |            |        |        | ept Nbr: | W054<br>WATE | 19 3                                  | 39536<br>WATER              | Collec                          | tion Date:<br>le On Date:<br>ved Date:       | 06/04/20 | 08 13       |                            | s.Edd           |
| SA                                |   | ontract Nbr<br>6-SBB-A19981     | Test U     | ser Ca | se Nbr | SAS Nbr  |              | Suffix                                | Decant                      | Distilled Volume                | File   | e Id     |             | FSuffix I                  | RТур<br>Н       |
| Batch #<br>Qc Typ<br>816462<br>BS | e CAS#  | Result/<br>Orig Rst<br>3.17E+00 |            |        |        | C YI     |              | Spk Conc/<br>%Rec<br>3.60E+00<br>88.0 | Analy<br>Method<br>UTOT_KPA | Aliq<br>Size/<br>2.52E-02<br>ML | Date/Time<br>Analyzed<br>07/15/2008<br>15:36 |          | RER/<br>UCL | LCS<br>LCL/UC<br>70<br>130 | R<br>L Typ<br>D |

TestAmerica QC Control Sample Report Lab Code: TARL Monday, July 21, 2008 FormNbr: R FormatType: FEAD VersionNbr: 05 File Name; h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd KPVM41CS Sdg/Rept Nbr: W05419 39536 Lab Sample Id: Collection Date: 05/27/2008 09:57 Client Id: NA Matrix: WATER WATER Sample On Date: Moisture/Solids%\*: QC Type: BS Received Date: 05/28/2008 **Test User** SAF Nbr Contract Nbr Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp MW6-SBB-A19981 BL H Batch # / Analyt/ Result/ Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS MDC LCL/UCL Typ Qc Type CAS# **Orig Rst** Unit **Uncert 2S** Yield %Rec Method Size/ UCL UCL Analyzed 8164623 U-234 8.60E+00 pCi/L 1.7E+00 1.42E-01 99.5 8.67E+00 UISO PLATE 2.0005E-01 70 06/20/2008 D 13966-29-5 1.0E+00 99.2 130 BS 15:05 8164623 U-235 pCi/L 1.6E-01 99.5 3.96E-01 2.01E-01 1.42E-01 UISO PLATE 2.0005E-01 06/20/2008 70 D 1.6E-01 15117-96-1 50.8 BS 15:05 130 8164623 U-238 8.45E+00 pCi/L 1.7E+00 1.42E-01 99.5 9.08E+00 UISO PLATE 2.0005E-01 06/20/2008 70 D 1.0E+00 BS U-238 93.0 15:05 130

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

| 1                                    | July 21, 2008<br>FormNbr: R           | F                               | ormatT        | J<br>ype: FEAD                             |           | merica<br>VersionNbr: | _            |                       |                            | nple Repo                  | rt<br>d\Fead\V\Rad\W0541       | 9.Edd, h:\Repo                               |             | b Code:<br>FeadIV\ |                            | 3.Edd            |
|--------------------------------------|---------------------------------------|---------------------------------|---------------|--|-----------|-----------------------|--------------|-----------------------|----------------------------|----------------------------|--------------------------------|--|-------------|--------------------|----------------------------|------------------|
| Clie                                 | Sample Id:<br>nt Id:<br>sture/Solids% | KPVM51C<br>NA<br>*:             | S             |  | N         | dg/Rept Natrix:       | 1            | W05419<br>WATER<br>BS |                            | 9536<br>VATER              | Samp                           | tion Date:<br>le On Date:<br>/ed Date:       | 05/27/3     |                    | 1:13                       |                  |
| SAF                                  |                                       | tract Nbr<br>-SBB-A19981        | 1             | Test User                                  | Case      | Nbr SA                | S Nbr        | Si                    | uffix                      | Decant                     | Distilled Volume               | File   | e ld        |                    | FSuffix<br>BN              | RТур<br>Н        |
| Batch #/<br>Qc Type<br>8164624<br>BS | Analyt/<br>CAS#<br>C-14<br>14762-75-5 | Result/<br>Orig Rst<br>4.88E+01 | Unit<br>pCi/L | Tot/Cnt<br>Uncert 2S<br>5.9E+00<br>4.8E+00 | Qu-<br>al | MDC<br>8.18E+00       | Trac<br>Yiel | eld 4.                | pk Conc/<br>%Rec<br>54E+01 | Analy<br>Method<br>C14_LSC | Aliq<br>Size/<br>2.00E-01<br>L | Date/Time<br>Analyzed<br>06/23/2008<br>21:32 | RPD/<br>UCL | RER/<br>UCL        | LCS<br>LCL/UC<br>70<br>130 | R<br>CL Typ<br>D |

Monday, July 21, 2008 TestAmerica QC Control Sample Report Lab Code: TARL FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd. h:\Reportdb\edd\FeadIV\Rad\39536.Edd Lab Sample Id: **KPVMT1CS** Sdg/Rept Nbr: W05419 39536 Collection Date: 06/04/2008 13:19 Client Id: NA Matrix: WATER WATER Sample On Date: Moisture/Solids%\*: QC Type: BS Received Date: 06/04/2008 SAF Nbr **Contract Nbr Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp MW6-SBB-A19981 BP H Batch #/ Analyt/ Result/ Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER LCS R CAS# Qc Type **Orig Rst** Unit Uncert 2S MDC Yield %Rec Method Size/ Analyzed UCL UCL LCL/UCL Typ 8164615 ALPHA 1.91E+01 pCi/L 4.4E+00 6.33E-01 100.0 2.27E+01 9310 ALPHAB 2.003E-01 06/26/2008 70 D 12587-46-1 BS 2.0E+00 84.3 16:27 130

|       | July 21, 2008<br>FormNbr: R           |                                 | FormatTy | /pe: FEAD                                  |           | Merica<br>VersionNbr              |        | Co              |  | mple Reporte: h:\Reportdb\edd\l |                                   | 19.Edd, h:\Rep                               |             | b Code:     |                           | 6.Edd     |
|-------|---------------------------------------|---------------------------------|----------|--|-----------|-----------------------------------|--------|-----------------|--|---------------------------------|-----------------------------------|--|-------------|-------------|---------------------------|-----------|
| Clien | Sample Id:<br>it Id:<br>ture/Solids%  | KPVMV10<br>NA<br>*:             | S        |  | N         | Sdg/Rept l<br>Matrix:<br>QC Type: | Nbr:   | W05<br>WAT      |  | 39536<br>WATER                  | Samp                              | ction Date:<br>le On Date:<br>ved Date:      | 06/04/      |             | 1:17                      |           |
| SAFN  |                                       | ntract Nbr<br>-SBB-A19981       | Te       | est User                                   | Case      | Nbr SA                            | AS Nbr |                 | Suffix                                 | Decant                          | Distilled Volume                  | File   | e Id        |             | FSuffix<br>BR             | RTyp<br>H |
|       | Analyt/<br>CAS#<br>BETA<br>12587-47-2 | Result/<br>Orig Rst<br>2.44E+01 | •        | Tot/Cnt<br>Uncert 2S<br>4.0E+00<br>2.5E+00 | Qu-<br>al | MDC<br>2.68E+00                   | Yie    | cer<br>eld<br>0 | Spk Conc.<br>%Rec<br>2.25E+01<br>108.4 | Analy<br>Method<br>9310_ALPHA   | Aliq<br>Size/<br>B 2.003E-01<br>L | Date/Time<br>Analyzed<br>06/26/2008<br>19:09 | RPD/<br>UCL | RER/<br>UCL | LCS<br>LCL/U<br>70<br>130 | CL Ty     |

Lab Code: TARL TestAmerica QC Control Sample Report Monday, July 21, 2008 FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd FormNbr: R Sdg/Rept Nbr: W05419 **KPVMW1CS** 39536 Collection Date: 06/04/2008 09:30 Lab Sample Id: Client Id: NA Matrix: WATER WATER Sample On Date: Moisture/Solids%\*: QC Type: BS Received Date: 06/04/2008

| SAF                  |                 | S-SBB-A19981        | ,     | est User             | Case | NDT 3   | SAS NDF         | Sumix             | Decant L        | Jistill <b>e</b> d Volume | FIIE                  | e Ia        |             | BT            | Н          |
|----------------------|-----------------|---------------------|-------|----------------------|------|---------|-----------------|-------------------|-----------------|---------------------------|-----------------------|-------------|-------------|---------------|------------|
| Batch # /<br>Qc Type | Analyt/<br>CAS# | Result/<br>Orig Rst | Unit  | Tot/Cnt<br>Uncert 2S | Qu-  | MDC     | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/             | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS<br>LCL/UC | R<br>L Typ |
| 8164617              | CO-60           | 3.99E+01            | pCi/L | 8.3E+00              |      | 3.79E+0 | 0               | 3.77E+01          | GAMMALL_GS      | 2.0007E+00                | 06/20/2008            |             |             | 70            | D          |
| BS                   | 10198-40-0      |                     |       | 8.3E+00              |      |         |                 | 105.8             |                 | L                         | 07:45                 |             |             | 130           |            |
| 8164617              | CS-137          | 5.46E+01            | pCi/L | 9.2E+00              |      | 4.19E+0 | 0               | 4.95E+01          | GAMMALL_GS      | 2.0007E+00                | 06/20/2008            |             |             | 70            | D          |
| BS                   | 10045-97-3      |                     |       | 9.2E+00              |      |         |                 | 110.2             |                 | L                         | 07:45                 |             |             | 130           |            |
| 8164617              | EU-152          | 7.69E+01            | pCi/L | 1.4E+01              |      | 8.58E+0 | 0               | 7.53E+01          | GAMMALL_GS      | 2.0007E+00                | 06/20/2008            |             |             | 70            | D          |
| BS                   | 14683-23-9      |                     |       | 1.4E+01              |      |         |                 | 102.2             |                 | L                         | 07:45                 |             |             | 130           |            |

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Qc Type

BS

8164618 I-129L

# **TestAmerica QC Control Sample Report**

Lab Code: TARL

FormatType: FEAD VersionNbr: 05

SAS Nbr

File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd

Lab Sample id:

KPVMX1CS

Sdg/Rept Nbr: W05419

MDC

39536

Collection Date: 05/20/2008 13:22

Client Id:

NA

Orig Rst

9.61E+00

Matrix: QC Type: WATER

BS

WATER

Decant

Sample On Date: Received Date:

05/23/2008

**Contract Nbr** MW6-SBB-A19981 Batch # / Analyt/ Result/

CAS#

15046-84-1

Tot/Cnt Unit Uncert 2S pCi/L 1.3E+00

1.3E+00

**Test User** 

Qual 4.20E-01

Case Nbr

Tracer Yield 84.7

Spk Conc/ %Rec 9.72E+00 98.9

Suffix

Analy Method 1129LL SEP L

Aliq Size/ 3.9761E+00 07/03/2008

**Distilled Volume** 

RPD/ Date/Time UCL Analyzed 06:58

File Id

RER/ UCL 130

LCS R LCL/UCL Typ 70 D

FSuffix RTyp

H

BV

| TMATE |  | July 21, 2008<br>FormNbr: R            | F   | ormatT        | ype: FEAD |                | estAme.<br>VersionNb            |       | QC I              | -                | te Report e: h:\Reportdb\edd\ | \FeadIV\Rad\W0541                  | 9.Edd, h:\Rep                                |                              | Code:                   |               | .Edd             |
|-------|--|--|---|---------------|-----------|----------------|---------------------------------|-------|-------------------|------------------|-------------------------------|------------------------------------|--|------------------------------|-------------------------|---------------|------------------|
| ADICA | Clien                                  | Sample Id:<br>nt Id:<br>sture/Solids%  | KN1JT1HF<br>B1V9W2                          | <b>2</b>      |           |                | odg/Rept<br>Matrix:<br>QC Type: |       | W054<br>WAT       |                  | 39536<br>WATER                | Samp                               | tion Date:<br>le On Date:<br>ved Date:       | 05/27/2                      |                         | 9:57          |                  |
|       | SAF 1                                  |  | ntract Nbr<br>-SBB-A19981                   | 7             | Test User | Case           | Nbr S                           | AS Nb | •                 | Suffix           | Decant                        | Distilled Volume                   | Fil  | e ld                         |                         | FSuffix I     | RTyp<br>H        |
|       | Batch # /<br>Qc Type<br>8164621<br>DUP | Analyt/<br>CAS#<br>Se-79<br>15758-45-9 | Result/<br>Orig Rst<br>6.86E+00<br>1.66E+00 | Unit<br>pCi/L |           | Qu-<br>al<br>U | MDC<br>1.14E+0                  | Y     | acer<br>ield<br>) | Spk Conc<br>%Rec | Analy<br>Method<br>SE79_SEP_I | Aliq<br>Size/<br>IE 1.999E-01<br>L | Date/Time<br>Analyzed<br>07/03/2008<br>19:07 | RPD/<br>UCL<br>122.1<br>20.0 | RER/<br>UCL<br>0.7<br>3 | LCS<br>LCL/UC | R<br>L Typo<br>D |

Monday, July 21, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

VersionNbr: 05 File Name: h:\Reportdb\edd\Fead\V\Rad\W05419.Edd, h:\Reportdb\edd\V\Rad\W05419.Edd, h:\Reportdb\edd\V\Rad\W05419.Edd, h:\Reportdb\edd\V\Rad\W05419.Edd, h:\Reportdb\edd\V\Rad\W05419.Edd, h:\Reportdb\edd\V\Rad\W05419.Edd, h:\Reportdb\edd\W05419.Edd, h:\Reportdb\edd\W05419.Ed

Lab Sample Id: KN1JT1JR Sdg/Rept Nbr: W05419 39536 Collection Date: 05/27/2008 09:57
Client Id: B1V9W2 Matrix: WATER WATER Sample On Date:

Moisture/Solids%\*: QC Type: DUP Received Date: 05/28/2008

| SAF 1                |                 | Contract Nbr<br>MW6-SBB-A19981 |       | Test User            |     | Nbr S/   | AS Nbr          | Suffix            | Decant          | Distilled Volume | File Id               |             | FSuffix RTyp<br>AS H |                |          |
|----------------------|-----------------|--------------------------------|-------|----------------------|-----|----------|-----------------|-------------------|-----------------|------------------|-----------------------|-------------|----------------------|----------------|----------|
| Batch # /<br>Qc Type | Analyt/<br>CAS# | Result/<br>Orig Rst            | Unit  | Tot/Cnt<br>Uncert 2S | Qu- | MDC      | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL          | LCS<br>LCL/UCL | R<br>Typ |
| 8164623              | U-234           | 1.24E+00                       | pCi/L | 4.4E-01              |     | 1.77E-01 | 105.7           |                   | UISO_PLATE      | 2.0001E-01       | 06/20/2008            | 4.1         | 0.2                  |                | D        |
| DUP                  | 13966-29-5      | 1.19E+00                       |       | 4.0E-01              |     |          |                 |                   |                 | L                | 15:03                 | 20.0        | 3                    |                |          |
| 8164623              | U-235           | 3.13E-02                       | pCi/L | 6.4E-02              | U   | 1.50E-01 | 105.7           |                   | UISO_PLATE      | 2.0001E-01       | 06/20/2008            | 445.6       | 1.                   |                | D        |
| DUP                  | 15117-96-1      | -1.19E-02                      |       | 6.4E-02              |     |          |                 |                   |                 | L                | 15:03                 | 20.0        | 3                    |                |          |
| 8164623              | U-238           | 7.07E-01                       | pCi/L | 3.2E-01              |     | 1.77E-01 | 105.7           |                   | UISO_PLATE      | _ 2.0001E-01     | 06/20/2008            | 6.6         | 0.2                  |                | D        |
| DUP                  | U-238           | 7.55E-01                       |       | 3.0E-01              |     |          |                 |                   |                 | L                | 15:03                 | 20.0        | 3                    |                |          |

| Monday,                                | July 21, 2008                           |   |               |           | Te             | estAme                          | rica    | QCI          | uplicat          | e Report                       |          |                               |  | La                         | Code:                  | TARL          |                 |
|--|---|---|---------------|-----------|----------------|---------------------------------|---------|--------------|------------------|--------------------------------|----------|-------------------------------|--|----------------------------|------------------------|---------------|-----------------|
|  | FormNbr: R                              | F   | ormat1        | ype: FEAD |                | VersionNb                       | r: 05   |              | File Nam         | e: h:\Reportdb\edd             | \FeadIV\ | Rad\W054                      | 19.Edd, h:\Repo                              | ortdb\edd\                 | FeadIV                 | Rad\39536.    | Edd             |
| Clie                                   | Sample Id:<br>nt Id:<br>sture/Solids%   | KN1JX1HF<br>B1V9W3                          | ?             |           |                | Sdg/Rept<br>Matrix:<br>QC Type: |         | W054<br>WATE |                  | 39536<br>WATER                 |          | Samp                          | ction Date:<br>ble On Date:<br>ved Date:     | 05/27/2                    |                        | 1:13          |                 |
| SAF<br>108-03                          |   | ntract Nbr<br>-SBB-A19981                   |               | Test User | Case           | Nbr S                           | SAS Nbr |              | Suffix           | Decant                         | Distille | ed Volume                     | File   | e Id                       |                        | FSuffix R     | КТур<br>Н       |
| Batch # /<br>Qc Type<br>8164622<br>DUP | Analyt/<br>CAS#<br>NP-237<br>13994-20-2 | Result/<br>Orig Rst<br>0.00E+00<br>0.00E+00 | Unit<br>pCi/L |           | Qu-<br>al<br>U | MDC<br>2.13E-01                 | Yi      | acer<br>eld  | Spk Conc<br>%Rec | / Analy<br>Method<br>NP237_LLE | _P 1.9   | Aliq<br>Size/<br>999E-01<br>L | Date/Time<br>Analyzed<br>06/26/2008<br>20:06 | RPD/<br>UCL<br>0.0<br>20.0 | RER/<br>UCL<br>0.<br>3 | LCS<br>LCL/UC | R<br>L Typ<br>D |

| Monday, July 21, 2008 | TestAmerica QC Duplicate Report |
|-----------------------|---------------------------------|
|-----------------------|---------------------------------|

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd

Lab Sample Id:

Client Id:

KN1JX1JR **B1V9W3** 

Matrix: QC Type:

Sdg/Rept Nbr: W05419 WATER

DUP

39536 WATER Collection Date: 05/27/2008 11:13

Sample On Date:

Received Date: 05/28/2008

| Mois                 | ture/Solids%       | *:                        | QC Type: DUP Received Date: 05/28/2008 |                      |      |          |                 |                   |                 |                  |                       |                |             |                  |          |
|----------------------|--------------------|---------------------------|--|----------------------|------|----------|-----------------|-------------------|-----------------|------------------|-----------------------|----------------|-------------|------------------|----------|
| SAF N<br>108-03      |                    | ntract Nbr<br>-SBB-A19981 | 1                                      | est User             | Case | Nbr SA   | S Nbr           | Suffix            | Decant          | Distilled Volume | File                  | e ld           |             | FSuffix RT<br>AU | Гур<br>Н |
| Batch # /<br>Qc Type | Analyt/<br>CAS#    | Result/<br>Orig Rst       | Unit                                   | Tot/Cnt<br>Uncert 2S | Qu-  | MDC      | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL    | RER/<br>UCL | LCS<br>LCL/UCL   | R<br>Typ |
| 8164624<br>DUP       | C-14<br>14762-75-5 | 1.62E+00<br>-1.46E+00     | pCi/L                                  | 4.1E+00<br>3.4E+00   | U    | 8.18E+00 | 100.0           |                   | C14_LSC         | 2.00E-01<br>L    | 06/23/2008<br>23:40   | 3818.4<br>20.0 | 1.1         |                  | D        |

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Monday, July 21, 2008

#### TestAmerica QC Duplicate Report

FormNbr: R

FormatType: FEAD

Test User

Unit

pCi/L

Tot/Cnt

Uncert 2S

2.0E+01

2.0E+01

1.7E+00

2.2E+00

2.2E+00

5.8E+00

6.2E+00

5.6E+01

1.9E+01

5.4E+00

pCi/L 1.7E+00

pCi/L 2.2E+00

pCi/L 2.2E+00

pCi/L 5.8E+00

pCi/L 6.2E+00

pCi/L 4.3E+00 4.3E+00

pCi/L 5.6E+01

pCi/L 1.9E+01

pCi/L 5.4E+00

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\W05419.Edd, h:\Reportdb\edd\Fead\V\Rad\39536.Edd

GAMMALL GS 1.9497E+00 06/20/2008

Lab Sample Id:

KPEV31HR

Sdg/Rept Nbr: W05419

MDC

3.54E+01

3.15E+00

4.08E+00

4.14E+00

1.04E+01

1.17E+01

7,40E+00

3.32E+01

3.46E+01

9.26E+00

39536

Collection Date: 06/04/2008 09:30

Lab Code: TARL

Client Id:

108-037

8164617 BE-7

8164617 CO-60

8164617 CS-134

8164617 CS-137

8164617 EU-152

8164617 EU-154

8164617 EU-155

8164617 RU-106

8164617 K-40

Batch #/

Qc Type

DUP

DUP

DUP

DUP

DUP

DUP

DUP

DUP

DUP

8164617

DUP

**B1V9T9** 

Result/

Orig Rst 7.39E+00

7.60E+00

-5.11E-01

7.65E-01

7.99E-01

-9.17E-02

1.83E+00

1.60E-02

3.40E+00

-4.15E-01

1.37E+00

3.10E-01

-5.13E-01

1,21E+00

8.04E+00

-1.17E+01

5.46E+00

4.23E+00

-1.10E+00

-9.73E-01

MW6-SBB-A19981

WATER Matrix:

SAS Nbr

Tracer

Yield

WATER

Sample On Date: Received Date:

06/04/2008

0.0

07:44

20.0

0.

3

Moisture/Solids%\*: SAF Nbr **Contract Nbr** 

Analyt/

CAS#

13966-02-4

10198-40-0

13967-70-9

10045-97-3

14683-23-9

15585-10-1

14391-16-3

13966-00-2

13967-48-1

14234-35-6

SB-125

QC Type: Case Nbr

Qu-

al

U

DUP

| Suffix            | Decant D        | istilled Volume | File                  | ld          |             | FSuffix RTyp<br>AW H |
|-------------------|-----------------|-----------------|-----------------------|-------------|-------------|----------------------|
| Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/   | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS R                |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 2.7         | 0.          | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 1005.3      | 1.          | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 251.9       | 0.6         | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 196.5       | 1.2         | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 255.6       | 0.9         | D                    |
|                   | _               | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 126.2       | 0.2         | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 495.6       | 0.6         | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 0.0         | 0.5         | D                    |
|                   |                 | L               | 07:44                 | 20.0        | 3           |                      |
|                   | GAMMALL_GS      | 1.9497E+00      | 06/20/2008            | 25.3        | 0.1         | D                    |
|                   | _               | L               | 07:44                 | 20.0        | 3           |                      |

TestAmerica rptFeadRadEdd v3.68 D

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

DUP

12587-46-1

5.93E+00

1.8E+00

Monday, July 21, 2008 TestAmerica QC Duplicate Report Lab Code: TARL FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd Lab Sample Id: KPEVW1ER Sdg/Rept Nbr: W05419 39536 Collection Date: 06/04/2008 13:19 Client Id: B1TKC2 Matrix: WATER WATER Sample On Date: Moisture/Solids%\*: QC Type: DUP **Received Date:** 06/04/2008 **Contract Nbr** SAF Nbr **Test User** Case Nbr SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTyp MW6-SBB-A19981 S08-003 AX H Batch #/ Analyt/ **Result** Tot/Cnt Qu-Tracer Spk Conc/ Analy Aliq RPD/ Date/Time RER/ LCS R **Qc Type** CAS# Orlg Rst Uncert 2S MDC Yield %Rec Method Size/ UCL Analyzed UCL LCL/UCL Typ 8164615 ALPHA 5.92E+00 pCi/L 2.2E+00 1.75E+00 100.0 9310\_ALPHAB 1.427E-01 06/26/2008 .0 0. D

17:35

20.0

3

Monday, July 21, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd

Lab Sample Id:

KPEVW1GR

Sdg/Rept Nbr: W05419

39536

Collection Date: 06/04/2008 13:19

Client Id:

B1TKC2

Matrix:

WATER

WATER

Sample On Date:

Moisture/Solids%\*:

QC Type:

DUP

Received Date:

06/04/2008

| SAF (                |                      | Contract Nbr<br>V6-SBB-A19981 | 1    | est User             | Case | Nbr     | SAS Nbr | Suffix | Decant          | Distilled Volume | File                  | e ld        |             | FSuffix R<br>AZ | Тур<br>Н |
|----------------------|----------------------|-------------------------------|------|----------------------|------|---------|---------|--------|-----------------|------------------|-----------------------|-------------|-------------|-----------------|----------|
| Batch # /<br>Qc Type | Analyt/<br>CAS#      | Result/<br>Orig Rst           | Unit | Tot/Cnt<br>Uncert 2S | Qu-  | MDC     | Trace   |        | Analy<br>Method | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCS<br>LCL/UCL  | R<br>Typ |
| 8164620<br>DUP       | Uranium<br>7440-61-1 | 1.25E+01<br>1.23E+01          | ug/L | 1.5E+00<br>1.5E+00   |      | 8.35E-0 | 2       |        | UTOT_KPA        | 2.51E-02<br>ML   | 07/15/2008<br>15:43   | 1.8<br>20.0 | 0.2         |                 | D        |

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\V\Rad\W05419.Edd, h:\Reportdb\edd\Fead\V\Rad\39536.Edd

KPEX61GR B1RTP0

Sdg/Rept Nbr: W05419

WATER

39536 WATER

06/04/2008 11:17 Collection Date:

Sample On Date:

Moisture/Solids%\*:

QC Type:

Matrix:

DUP

Received Date: 06/04/2008

| S08-0                 |                    | tract Nbr<br>-SBB-A19981 | т     | est User             | Case | Nbr SA   | S Nbr           | Suffix            | Decant I        | Distilled Volume | File                  | e Id         |             | FSuffix R<br>BA | Тур<br>Н |
|-----------------------|--------------------|--------------------------|-------|----------------------|------|----------|-----------------|-------------------|-----------------|------------------|-----------------------|--------------|-------------|-----------------|----------|
| Batch # /<br>Qc Type  | Analyt/<br>CAS#    | Result/<br>Orig Rst      | Unit  | Tot/Cnt<br>Uncert 2S | Qu-  | MDC      | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL  | RER/<br>UCL | LCS<br>LCL/UCI  | R<br>Typ |
| 8164616<br><b>DUP</b> | BETA<br>12587-47-2 | 6.70E+00<br>5.67E+00     | pCi/L | 1.9E+00<br>1.7E+00   |      | 2.81E+00 | 100.0           |                   | 9310_ALPHAE     | 2.002E-01<br>L   | 06/26/2008<br>19:09   | 16.6<br>20.0 | 0.8<br>3    |                 | D        |

44

Lab Code: TARL Monday, July 21, 2008 **TestAmerica QC Duplicate Report** FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd FormNbr: R Sdg/Rept Nbr: W05419 KPEX61HR 39536 Collection Date: 06/04/2008 11:17 Lab Sample Id: B1RTP0 WATER Matrix: WATER Sample On Date: Client Id: Moisture/Solids%\*: QC Type: DUP Received Date: 06/04/2008 Contract Nbr **Test User** SAS Nbr Suffix Decant **Distilled Volume** File Id FSuffix RTvp SAF Nbr Case Nbr S08-001 MW6-SBB-A19981 BB H Tot/Cnt Batch #/ **Analyt** Result Qu-Tracer Spk Conc/ Analy Aliq Date/Time RPD/ RER/ LCS R Size/ LCL/UCL Typ Qc Type CAS# **Orig Rst** Uncert 2S al MDC Yield %Rec Method Analyzed UCL UCL 8164619 SR-90 2.56E-01 pCi/L 2.8E-01 5.76E-01 85.8 SRISO SEP P 1.0002E+00 07/03/2008 22.5 0.3 D 10098-97-2 3.21E-01 2.8E-01 05:39 20.0 3 DUP

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

Monday, July 21, 2008 TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05419.Edd, h:\Reportdb\edd\FeadIV\Rad\39536.Edd

Lab Sample Id:

KPEVW1FW

Sdg/Rept Nbr: W05419

05419 39536

Collect

Collection Date: 06/04/2008 13:19

Client Id:

B1TKC2

Matrix: WATER

WATER

Sample On Date: Received Date:

06/04/2008

Moisture/Solids%\*:

QC Type:

MS

.....

utc. 00/04/2000

| SAF  <br>S08-0       |                      | Contract Nbr<br>V6-SBB-A19981 | 1    | est User             | Case | Nbr S    | SAS Nbr         | Suffix            | Decant          | Distilled Volume | File                  | e ld        |             | FSuffix F<br>AY | RTyp<br>H  |
|----------------------|----------------------|-------------------------------|------|----------------------|------|----------|-----------------|-------------------|-----------------|------------------|-----------------------|-------------|-------------|-----------------|------------|
| Batch # /<br>Qc Type | Analyt/<br>CAS#      | Result/<br>Orig Rst           | Unit | Tot/Cnt<br>Uncert 2S | Qu-  | MDC      | Tracer<br>Yield | Spk Conc/<br>%Rec | Analy<br>Method | Aliq<br>Size/    | Date/Time<br>Analyzed | RPD/<br>UCL | RER/<br>UCL | LCL/UC          | R<br>L Typ |
| 8164620<br>MS        | Uranium<br>7440-61-1 | 4.62E+01                      | ug/L | 5.5E+00<br>5.5E+00   |      | 8.38E-02 | 2               | 3.61E+01<br>128.1 | UTOT_KPA        | 2.50E-02<br>ML   | 07/15/2008<br>15:41   |             |             | 60<br>140       | D          |

## 

#### TA Richland Hexavalent Chromium - Water

SOP Information BATCH # L. Dinh Calibration Curve Information 8151262 Analyst: RICH-WC-5003 W05419 SDG # Start Date: 5/29/2008 Amount Conc.(mg/L) ABS. Start Time: Blank 0.000 0.000 0.000 Revision 7 Matrix Water Std. 1 5/29/2008 0.100 0.050 0.100 End Date: End Time Std. 2 0.500 0.250 0.480 Instrument Information Std. 3 0.750 0.375 0.718 MDL (mg/L) 0.002 Hach DR2010 Instrument: Std. 4 1.500 0.750 1.412 540 Analyst Signature: Wavelength: Std 5 2.000 1.000 1.869 R Squared 0.99991 5/30/08 Standard Volume (mL): 100.000 Slope: 1.86743 Date: Date of Curve: 5/29/2008 0.00842 Intercept: Calibration Information: ICV Information: LCS Information: Matrix Spike Information: Cr-08-00111 Cr-08-00112 Cr-08-00111 Cr-08-00111 Dilution ID # 05/29/08 05/29/08 05/29/08 05/29/08 Prep Date: Concentration (mg/L) 50 50 50 50 05/30/08 05/30/08 05/30/08 05/30/08 Expiration Date: 190 Pipettor(s) 70.190 190 190 Volume Used **Expected Value** 1,000 0.50000 1.00 0.50000 0.50 0.26316 Expected values are only amounts added in mg and not final concentrations

| Sample ID  | Client ID   | Туре       | Sample<br>Volume (mL) | Sample ABS. | Blank ABS. | Corrected ABS. | Dilution<br>Factor | Curve Conc.<br>(mg/L)                                    | Final Conc.<br>(mg/L)        | % Rec.  |
|------------|-------------|------------|-----------------------|-------------|------------|----------------|--------------------|--|------------------------------|---------|
| n/a        | n/a         | ICV        | 100.000               | 0.967       | 0.000      | 0.967          | 1                  | 0.5133   | 0.513                        | 102.66% |
| n/a        | n/a         | ICB        | 100.000               | 0.000       | 0.000      | 0.000          | 1                  | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |         |
| KN49G1AA   | n/a         | Prep Blank | 100.000               | 0.000       |            | 0.000          | 1                  | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |         |
| KN49G1AC   | n/a         | LCS        | 100.000               | 0.951       |            | 0.951          | 1                  | 0.5048   | 0.505                        | 100.95% |
| KN3T71AA   | B1V608'     | Sample     | 100.000               | 0.005       |            | 0.005          | 1                  | -0.0018  | <mdl< td=""><td></td></mdl<> |         |
| KN3T71AC-S | B1V608'-MS  | MS         | 100.000               | 0.505       |            | 0.505          | 1                  | 0.2659   | 0.266                        | 101.05% |
| KN3T71AD-D | B1V608'-MSD | MSD        | 100.000               | 0.505       |            | 0.505          | 1                  | 0.2659   | 0.266                        | 101.05% |
| KN3T71AE-X | B1V608'-DUP | Duplicate  | 100,000               | 0.004       |            | 0.004          | 1                  | -0.0024  | <mdl< td=""><td></td></mdl<> |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
| n/a        | n/a         | CCV        | 100.000               | 0.966       |            | 0.966          | 1                  | 0.5128   | 0.513                        | 102.56% |
| n/a        | n/a         | ССВ        | 100.000               | -0.001      |            | -0.001         | 1                  | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             |            |                | 1                  |  |                              |         |
|            |             |            | 100.000               |             | 1          |                | 1                  |  | 1                            |         |

## TestAmerica

#### TA Richland Hexavalent Chromium - Water

SOP Information BATCH# 8154426 Calibration Curve Information L. Dinh Analyst: RICH-WC-5003 SDG # W05419 Start Date: 6/2/2008 Amount Conc.(mg/L) ABS. 0.000 0.000 Revision 7 Water Start Time: Blank 0.000 Matrix End Date: 6/2/2008 Std. 1 0.100 0.050 0.098

Std. 2 0.500 0.250 0.475 Instrument Information **End Time** 0.723 MDL (mg/L) 0.002 Hach DR2010 Std. 3 0.750 0.375 Instrument: 540 Analyst Signature: Std. 4 1.500 0.750 1.417 Wavelength: 0.99983 Std 5 2.000 1.000 1.865 R Squared 1.86829 Standard Volume (mL): 100,000 Slope: 13/08 Date: 0.00790 Date of Curve: 6/2/2008 Intercept:

LCS Information: Matrix Spike Information: Calibration Information: ICV Information: Cr-08-00114 Cr-08-00113 Cr-08-00113 Cr-08-00113 Dilution ID # 06/02/08 06/02/08 06/02/08 06/02/08 Prep Date: 50 50 50 50 Concentration (mg/L) 06/03/08 06/03/08 06/03/08 06/03/08 **Expiration Date:** 190 190 190 70,190 Pipettor(s) 0.50000 1.00 0.50000 0.50 0.26316 Volume Used **Expected Value** 1.000

Sample ID Client ID Type Sample Volume (mL) Sample ABS. Blank ABS. Corrected ABS. Blank ABS. Corrected ABS. Blank ABS. Factor (mg/L) (mg/L) % R

| Sample ID  | Client ID   | Туре       | Volume (mL) | Sample ABS. | Blank ABS. | ABS.   | Factor | (mg/L)   | (mg/L)                       | % Rec.     |
|------------|-------------|------------|-------------|-------------|------------|--------|--------|--|------------------------------|------------|
| n/a        | n/a         | ICV        | 100.000     | 0.955       | 0.000      | 0.955  | 1      | 0.5069   | 0.507                        | 101.39%    |
| n/a        | n/a         | ICB        | 100.000     | 0.000       | 0.000      | 0.000  | 1      | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |            |
| KN8D11AA   | n/a         | Prep Blank | 100.000     | 0.000       |            | 0.000  | 1      | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |            |
| KN8D11AC   | n/a         | LCS        | 100.000     | 0.955       |            | 0.955  | 1      | 0.5069   | 0.507                        | 101.39%    |
| KN78H1AA   | B1V5L1'     | Sample     | 100.000     | 0.017       |            | 0.017  | 1      | 0.0049   | 0.005                        | -1         |
| KN78H1AC-S | B1V5L1'-MS  | MS         | 100.000     | 0.523       |            | 0.523  | 1      | 0.2757   | 0.276 C.                     | 102.92%    |
| KN78H1AD-D | B1V5L1'-MSD | MSD        | 100.000     | 0.522       |            | 0.522  | 1      | 0.2752   | 0.275 0.2                    | 102.71%    |
| KN78H1AE-X | B1V5L1'-DUP | Duplicate  | 100.000     | 0.016       |            | 0.016  | 1      | 0.0043   | 0.004                        | SKS 6/3/08 |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
| n/a        | n/a         | CCV        | 100.000     | 0.954       |            | 0.954  | 11     | 0.5064   | 0.506                        | 101.28%    |
| n/a        | n/a         | CCB        | 100.000     | -0.001      |            | -0.001 | 1      | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |
|            |             |            | 100.000     |             |            |        | 1      |  |                              |            |



#### TA Richland **Hexavalent Chromium - Water**

| Analyst:          | D. Petty       |                | Calibration Co | urve Information |                | SOP Info        | rmation       | BATCH #           | 8155303      |
|-------------------|----------------|----------------|----------------|------------------|----------------|-----------------|---------------|-------------------|--------------|
| Start Date:       | 6/3/2008       |                | Amount         | Conc.(mg/L)      | ABS.           | RICH-W          | C-5003        | SDG #             | W05419       |
| Start Time:       |                | Blank          | 0.000          | 0.000            | 0.000          | Revis           | ion 7         | Matrix            | Water        |
| End Date:         | 6/3/2008       | Std. 1         | 0.100          | 0.050            | 0.100          |                 |               |                   |              |
| End Time          |                | Std. 2         | 0.500          | 0.250            | 0.495          |                 |               | Instrument In     | formation    |
|                   |                | Std. 3         | 0.750          | 0.375            | 0.731          | MDL (mg/L)      | 0.002         | Instrument:       | Hach DR2010  |
| Analyst Signature | :              | Std. 4         | 1.500          | 0.750            | 1.439          |                 |               | Wavelength:       | 540          |
|                   |                | Std 5          | 2.000          | 1.000            | 1.888          |                 |               | R Squared         | 0.99976      |
| Date:             | 06/03/08       | Standard Volu  | me (mL):       |                  | 100.000        |                 |               | Slope:            | 1.89023      |
|                   |                | Date of Curve: |                |                  | 6/3/2008       |                 |               | Intercept:        | 0.01153      |
|                   |                | Calibration    | Information:   | ICV Infor        | mation:        | LCS Info        | rmation:      | Matrix Spike      | Information: |
| Dilution ID #     |                | Cr-08          | -00115         | Cr-08-0          | 00116          | Cr-08-          | 00115         |                   | -00115       |
| Prep Date:        |                | 06/0           | 03/08          | 06/03            | 3/08           | 06/0            | 3/08          | 06/               | 03/08        |
| Concentration (m  | g/L)           |                | 50             | 50               | )              | 5               | 0             |                   | 50           |
| Expiration Date:  |                | 06/0           | 04/08          | 06/04            | 4/08           | 06/0            | 4/08          | 06/               | 04/08        |
| Pipettor(s)       |                | 70             | 190            | 19               | 0              | 19              | 90            | 1                 | 90           |
| Volume Used       | Expected Value |                |                | 1.000            | 0.50000        | 1.00            | 0.50000       | 0.50              | 0.26316      |
|                   |                |                |                | Expec            | ted values are | only amounts ad | ded in mg and | not final concent | rations      |
|                   |                |                |                |                  |                | D1111           |               |                   |              |

|  |             |            |                       |             | Exped      | ted values are o | nly amounts a      | dded in mg and n   | ot final concentra           | ations  |
|--|-------------|------------|-----------------------|-------------|------------|------------------|--------------------|--|------------------------------|---------|
| Sample ID  | Client ID   | Туре       | Sample<br>Volume (mL) | Sample ABS. | Blank ABS. | Corrected ABS.   | Dilution<br>Factor | Curve Conc.<br>(mg/L)                                    | Final Conc.<br>(mg/L)        | % Rec.  |
| n/a  | n/a         | ICV        | 100.000               | 0.982       | 0.000      | 0.982            | 1                  | 0.5134   | 0.513                        | 102.68% |
| n/a  | n/a         | ICB        | 100.000               | 0.000       | 0.000      | 0.000            | 1                  | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |         |
| KPAKX1AA   | n/a         | Prep Blank | 100.000               | 0.000       |            | 0.000            | 1                  | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |         |
| KPAKX1AC   | n/a         | LCS        | 100.000               | 0.972       |            | 0.972            | 1                  | 0.5081   | 0.508                        | 101.62% |
| KPAJ71AA   | B1V6Y4'     | Sample     | 100.000               | 0.004       |            | 0.004            | 1                  | -0.0040  | <mdl< td=""><td></td></mdl<> |         |
| KPAJ71AC-S   | B1V6Y4'-MS  | MS         | 100.000               | 0.515       |            | 0.515            | 1                  | 0.2664   | 0.266                        | 101.21% |
| KPAJ71AD-D   | B1V6Y4'-MSD | MSD        | 100.000               | 0.513       |            | 0.513            | 1                  | 0.2653   | 0.265                        | 100.81% |
| KPAJ71AE-X   | B1V6Y4'-DUP | Duplicate  | 100.000               | 0.003       |            | 0.003            | 1                  | -0.0045  | <mdl< td=""><td></td></mdl<> |         |
| KPAJ91AA   | B1V5J7'     | Sample     | 100.000               | 0.121       |            | 0.121            | 1                  | 0.0579   | 0.058                        |         |
| KPCLSIAA   | SYS 1/8/UR  |            | 100.000               |             |            |                  | 1                  |  |                              |         |
|  |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |
|  |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |
| n/a  | n/a         | CCV        | 100.000               | 0.965       |            | 0.965            | 1                  | 0.5044   | 0.504                        | 100.88% |
| n/a  | n/a         | CCB        | 100.000               | 0.000       |            | 0.000            | 1                  | <mdl< td=""><td><mdl< td=""><td></td></mdl<></td></mdl<> | <mdl< td=""><td></td></mdl<> |         |
|  |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |
|  |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |
| Address of the second s |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |
|  |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |
|  |             |            | 100.000               |             |            |                  | 1                  |  |                              |         |

#### RADIOCHEMISTRY, First Level Review

Lot No., Due Date:

J8E280299, J8F050164; 07/21/2008

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8164623; RUISO Ulso by ALP

SDG, Matrix:

W05419; WATER

| 1 | 4 | 0  | ~ | 1 | ~ |
|---|---|----|---|---|---|
| ı | и | ·U | C | U | U |

1.1 Is the ICOC page complete; includes all applicable analysis, dates. SOP numbers, and revisions?

Yes No N/A

#### 2.0 QC Batch

- 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?
- Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A

#### 3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A

#### 4.0 Raw Data

4.1 Were results calculated in the correct units?

Yes No N/A

4.2 Were analysis volumes entered correctly?

Yes No N/A

4.3 Were Yields entered correctly?

Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements?

Yes No N/A

4.5 Were raw counts reviewed for anomalies?

Yes No N/A

#### 5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A

5.2 Are all required forms filled out?

Yes No NA

5.3 Was the correct methodology used?

Yes No N/A

5.4 Was transcription checked?

Yes No N/A

5.5 Were all calculations checked at a minimum frequency?

Yes No N/A

5.6 Are worksheet entries complete and correct?

Yes No N/A

6.0 Comments on any No response:

First Level Review

TAL Richland

QAS RADCALCV4.8.33

TESTAMERICA

Date

6/27/08



### **Data Review Checklist** RADIOCHEMISTRY

Second Level Review

| Batch Number: 816965 | Batch Number: | 8164623 |
|----------------------|---------------|---------|
|----------------------|---------------|---------|

| A. Sample Analysis  | Yes (√) | No (√) | NA (V) |
|---|---------|--------|--------|
| Are the complexialds within accontance criteria?  | /       |        |        |
| Are the sample yields within acceptance criteria?   | 1       |        |        |
| 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?                                | 1       |        |        |
| 3. Are the correct isotopes reported?   |         |        |        |
| B. QC Samples  1. Is the Minimum Detectable Activity for the blank result ≤the Contract Detection Limit?    | 1/      |        |        |
| 2. Does the blank result meet the Contract criteria?  | 4       |        |        |
| 3. Is the blank result < the Contract Detection Limit?  | J       |        | ,      |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? | /       |        |        |
| 5. Is the LCS recovery within contract acceptance criteria?   | V.      |        |        |
| 6. Is the LCS Minimum Detectable Activity ≤the Contract Detection Limit?                                    |         |        |        |
| 7. Do the MS/MSD results and yields meet acceptance criteria?   |         |        | V      |
| B. Do the duplicate sample results and yields meet acceptance criteria?                                     |         |        |        |
| C. Other  1. Are all Non-conformances included and noted?   |         |        |        |
| 2. Are all required forms filled out?   | V       |        |        |
| 3. Was the correct methodology used?  | V,      |        |        |
| 4. Was transcription checked?   | 1.      |        |        |
| 5. Were all calculations checked at a minimum frequency?  | 1       |        |        |
| 6. Were units checked?  | 1       |        |        |

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#### RADIOCHEMISTRY, First Level Review

Lot No., Due Date:

J8E280299, J8F050164; 07/21/2008

Client, Site:

384868: PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8164622; RNP237 Np-237 w/tracer

| SD  | G, Matrix:                            | W05419; WATER   |     |    |     |
|-----|---------------------------------------|---|-----|----|-----|
|     | COC<br>Is the ICOC page co            | emplete; includes a Lapplicable analysis, dates, SOP numbers, and revisions?              | Yes | No | N/A |
|     | QC Batch<br>Do the Summary/De         | stailed Reports include a calculated result for each sample listed on the QC Batch Sheet? | Yeş | No | N/A |
| 2.2 | Are the QC appropri                   | ate for the analysis included in the batch?   | Yes | No | N/A |
| 2.3 | Is the Analytical Bato                | ch Worksheet complete; includes as appropriate, volumes, count times, etc?                | Yes | No | N/A |
| 2.4 | Does the Worksheet                    | s include a Tracer Vial label for each sample?  | Yes | No | N/A |
|     | QC & Samples<br>Is the blank results, | yield, and MDA within contract limits?  | Yes | No | N/A |
| 3.2 | Is the LCS result, yie                | eld, and MDA within contract limits?  | Yes | No | N/A |
| 3.3 | Are the MS/MSD res                    | rults, yields, and MOA within contract fimits?  | Yes | No | N/A |
| 3.4 | Are the duplicate res                 | sult, yields, and MDAs within contract limits?  | Yes | No | N/A |
| 3.5 | Are the sample yield                  | s and MDAs within contract limits?  | Yes | No | N/A |
|     | Raw Data<br>Were results calculate    | ted in the correct units?   | Yes | No | N/A |
| 4.2 | Were analysis volum                   | nes entered correctly?  | Yes | No | N/A |
| 4.3 | Were Yields entered                   | correctly?  | Yes | No | N/A |
| 4.4 | Were spectra review                   | ed/meet contractual requirements?   | Yes | No | N/A |
| 4.5 | Were raw counts rev                   | riewed for anomalies?   | Yes | No | N/A |
|     | Other<br>Are all nonconformat         | nces included and noted?  | Yes | No | N/4 |
| 5.2 | Are all required forms                | s filled out?   | Yes | No | N/A |
| 5.3 | Was the correct meth                  | nodology used?  | Yes | No | N/A |
| 5.4 | Was transcription che                 | ecked?  | Yes | No | N/A |
| 5.5 | Were all calculations                 | checked at a minimum frequency?   | Yes | No | N/A |
| 5.6 | Are worksheet entries                 | s complete and correct?   | Yes | No | N/A |

First Level Review

6.0 Comments on any No response:

TAL Richland QAS\_RADCALCv4.8.33 TESTAMERICA



# Data Review Checklist RADIOCHEMISTRY Second Level Review

| Batch Number: | 81646 | 22 |
|---------------|-------|----|
|               |       |    |

| Yes (V),   | No (√)   | NA (V) |
|--|----------|--------|
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| V  |          |        |
|  |          | V      |
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| <b>V</b>   |          | 1      |
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|  |          | V      |
| 1  |          |        |
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| J.   |          |        |
| 1  |          |        |
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| The second division of | 1 cs (v) |        |

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Second Level Review: Zuthe (

Date: 6/30/8

Lot No., Due Date:

J8F050162,J8F050177; 07/21/2008

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8164615; RALPHA-A Alpha by GPC-Am

|        | Correction Calculation   |  |                                       |     |       |
|--------|--|--|---------------------------------------|-----|-------|
|        | and the second s | Protocol Used.   | Yeş                                   | No  | N/A   |
|        | OK   | The second secon | · · · · · · · · · · · · · · · · · · · |     |       |
|        |  | hods Were Used To Analyze the Samples  | Yes                                   | No  | N/A   |
|        | OK<br>Final Posults Are in   | he Appropriate Activity Unite  | <b>Y</b>                              |     |       |
|        | OK   | he Appropriate Activity Units  | Yes                                   | No  | N/A   |
|        |  | Required QC Appropriate for the Method   | Van                                   | No  | N1//  |
|        | OK .   | addition do repropriate for the motified   |                                       | NO  | N/A   |
| 8.04   | The Correct Tracer a   | nd QC Vials Where Used in the Samples  | Yeş                                   | No  | N/A   |
|        | OK   |  | J                                     | .,, | 147   |
| 2.05   | Sample was Appropr   | iately Traced Before or After Fractionating the Sample   | Yeş                                   | No  | N/A   |
|        | OK   |  | <b>V</b>                              |     |       |
| 3.06   | At Least the Minimur   | n Sample Volume Was Used   | Yes                                   | Ng  | N/A   |
| F      |  | EVW1AA 142.90<200.00   |                                       | V   |       |
|        | KPEX61AA 166.80<20   |  |                                       |     |       |
|        | The Correct Count G  | eometry was Used.  | Yea                                   | No  | N/A   |
|        | OK C   |  | V                                     |     |       |
|        |  | inted for the Minimum Count Time or CRDL was Achieved.   | Yes                                   | No  | N/A   |
|        | OK   | - Control   inite  |                                       |     |       |
|        | Method Blank is with   | n Control Limits.  | Yes                                   | No  | N/A   |
|        | OK<br>comments:  |  | •                                     |     |       |
| 5.1 0  | ominents.  |  |                                       |     |       |
| R 11   | Matrix Blank is within   | Control Limits   | Voo                                   | No  | NI/A  |
|        | No Matrix Blanks (MBIKS  |  | Yes                                   | 140 | NUM   |
|        |  | AS Lim t Value (No B Flag Necessary).  | Von                                   | No  | NIA   |
|        | OK   | To Little Value (140 B Flag 1460655ally).  | Yes                                   | 140 | 14/14 |
|        |  | eate Equation Value within Control Limits.   | Yeş                                   | No  | NI/A  |
|        | OK (RPD)   | ate Equation value within control Elinis.  | 7                                     | 140 | NA    |
|        | LCS within Control Li  | mits   | Yes                                   | No  | N/A   |
|        | OK   |  | J                                     | 140 | 14/   |
|        | MLCS within Control  | Limits.  | Yes                                   | No  | N/A   |
|        | o Matrix Spikes (MLCS  |  |                                       |     | V     |
|        | MS within Control Lin  |  | Yes                                   | No  | N/A   |
|        | lo Matrix Spike Sample   |  |                                       |     | V     |
|        | Tracer within Control  |  | Yeg                                   | No  | N/A   |
| (      | OK   |  | V                                     |     |       |
| 1.18   | Samples are above N  | finimum Tracer Yield (No Failed Samples)   | Yeş                                   | No  | N/A   |
| (      | OK   |  | <b>V</b>                              |     |       |
| 3.19 5 | Sample Specific MD0  | C <= CRDL.   | Yeş                                   | No  | N/A   |
| (      | OK   |  | ~                                     |     |       |
| 1.2 Co | omments:   |  |                                       |     |       |
|        |  |  | 44.00                                 | - 1 |       |
|        |  | lot Detected, U Flag.  | Yes                                   | No  | NA    |
|        | lo Limit Specified!  | N. B. and A. H. Elen   |                                       |     | Y     |
|        |  | Not Detected, U Flag.  | Yes                                   | NO  | N/A   |
|        | atch Positive Result => PEVW1AA ALPHA 5.9  | 5.00 I · 1.7E · 00   |                                       | Y   |       |
|        | Result <= Action Leve  |  | Vac                                   | No  | N/A   |
|        | OK; No Action Level Fo   |  | 7                                     | 140 | IVA   |
|        | JA, NO ACTION LEVEL TO   | JIII -> ALFIIA   | •                                     |     |       |
|        | OK; No Callin Level Fo   | und => ALPHA   |                                       |     |       |
| .24    | Result + 3s >=0, Not   | Too Negative.  | Yeş                                   | No  | N/A   |
|        | OK   |  | V                                     |     |       |
| .25 (  | Counting Spectrum a  | re within FWHM Limits.   | Yes                                   | No  | N/A   |
| N      | lo FWHM found in Bato  | h Data!  |                                       |     | V     |
|        | chland   |  |                                       |     |       |

8.27 Correct Count Library Used.

No Count Library found in Batch Data!

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later version No N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versionals.) N/A

8.3 Comments:

31 Results Blank Subtracted as Appropriate.

No N/A

Yes No N/A

First Level Review

TAL Richland



# Data Review Checklist RADIOCHEMISTRY Second Level Review

| Review Item   | Yes (√)      | No (v) | NA ( |
|---|--------------|--------|------|
| A. Sample Analysis  |              |        | /    |
| Are the sample yields within acceptance criteria?   | 1            |        | V    |
| 2. Is the sample Minimum Detectable Activity < the Contract   | 1            |        |      |
| Detection Limit?  | V/           |        |      |
| 3. Are the correct isotopes reported?   | <b>V</b>     |        |      |
| B. QC Samples  1. Is the Minimum Detectable Activity for the blank result ≤the Contract Detection Limit?    | 1/           |        |      |
| 2. Does the blank result meet the Contract criteria?  | V,           |        |      |
| 3. Is the blank result < the Contract Detection Limit?  | ./           |        | 1    |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? | 1            |        |      |
| 5. Is the LCS recovery within contract acceptance criteria?   | V            |        |      |
| 6. Is the LCS Minimum Detectable Activity ≤the Contract Detection Limit?                                    | $\checkmark$ |        | /    |
| 7. Do the MS/MSD results and yields meet acceptance criteria?   |              |        | V    |
| 8. Do the duplicate sample results and yields meet acceptance criteria?                                     |              |        | ,    |
| C. Other  |              |        |      |
| 1. Are all Non-conformances included and noted?   | 1            |        | V    |
| 2. Are all required forms filled out?   | V,           |        |      |
| 3. Was the correct methodology used?  | V            |        |      |
| 4. Was transcription checked?   | 1            |        |      |
| 5. Were all calculations checked at a minimum frequency?  | 1            |        |      |
| 5. Were units checked?  | J            |        |      |

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RADIOCHEMISTRY, First Level Review CALLER DE BROWNENTAL TESTING Lot No., Due Date: J8F050162, J8F050177; 07/21/2008 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 8164616; RBETA-SR Beta by GPC-Sr/Y SDG. Matrix: W05419; WATER 8.0 Correction Calculation Protocol Used. No N/A 8.01 The Appropriate Methods Were Used To Analyze the Samples Yes No N/A 8.02 Final Results Are in the Appropriate Activity Units Yes No N/A 8.03 Batch Contains the Required QC Appropriate for the Method Yes No N/A 8.04 The Correct Tracer and QC Vials Where Used in the Samples Yes No N/A 8.05 Sample was Appropriately Traced Before or After Fractionating the Sample Yes No N/A 3.06 At Least the Minimum Sample Volume Was Used Yes No N/A 3.07 The Correct Count Geometry was Used. Yes No N/A OK 8.08 The Sample was Counted for the Minimum Count Time or CRDL was Achieved. Yes No N/A 8.09 Method Blank is within Control Limits. Yes No N/A OK 8.1 Comments: 8.11 Matrix Blank is within Control Limits. Yes No N/A No Matrix Blanks (MBlks) found in Batch! 8.12 Method Blank(s) < QAS Limit Value (No B Flag Necessary).</p> Yes No N/A Yes No N/A 8.13 QAS Specified Duplicate Equation Value within Control Limits. OK (RPD) Yes No N/A 8.14 LCS within Control Limits. Yes No N/A 3.15 MLCS within Control Limits. No Matrix Spikes (MLCS) found n Batch! 3.16 MS within Control Limits. Yes No N/A No Matrix Spike Samples (MS) found in Batch! Yes No N/A 16.17 Tracer within Control Limits. Yes No N/A 8.18 Samples are above Minimum Tracer Yield (No Failed Samples) OK Yes No N/A 8.19 Sample Specific MDC <= CRDL. OK 8.2 Comments: 8.21 Result < Lc, Activity Not Detected, U Flag. Yes No N/A No Limit Specified! Yes No N/A 8.22 Result < Mdc, Activity Not Detected, U Flag. Batch Positive Result => KPEVW1AC BETA 1.4E+01 L:2.9E+00 KPEX61AC BETA 5.7E+00 L:2.9E+00 No N/A 2.23 Result <= Action Level, when Defined. OK: No Action Level Found => BETA OK; No Callin Level Found => BETA No N/A 3.24 Result + 3s >= 0, Not Too Negative. 8.25 Counting Spectrum are within FWHM Limits. Yes No N/A

TAL Richland

No FWHM found in Batch Data!

8.27 Correct Count Library Used.

No Court Liorary found in Batch Data!

Yes No N/A

- 8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions No N/A
- 8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later version). N/A

8.3 Comments:

B.31 Results Blank Subtracted as Appropriate.

Yes No N/A

First Level Review

TAL Richland

QAS\_RADCALCv4.8.33 TESTAMERICA Date



### Data Review Checklist RADIOCHEMISTRY

Second Level Review

| Review Item   | Yes (√) | No (√) | NA (v) |
|---|---------|--------|--------|
| A. Sample Analysis  |         |        | 1      |
| Are the sample yields within acceptance criteria?   | /       |        | V      |
| 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?                                | 1       |        |        |
| 3. Are the correct isotopes reported?   | /       |        |        |
| B. QC Samples   | V       |        |        |
| 1. Is the Minimum Detectable Activity for the blank result ≤the Contract Detection Limit?                   | 1       |        |        |
| 2. Does the blank result meet the Contract criteria?  | 1       |        |        |
| 3. Is the blank result < the Contract Detection Limit?  | 1       | V-244  | ,      |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? | /       |        |        |
| 5. Is the LCS recovery within contract acceptance criteria?   | V.      |        |        |
| 6. Is the LCS Minimum Detectable Activity ≤the Contract Detection Limit?                                    |         |        |        |
| 7. Do the MS/MSD results and yields meet acceptance criteria?   |         |        | V      |
| 8. Do the duplicate sample results and yields meet acceptance   |         |        |        |
| criteria?   | V       |        | /      |
| C. Other 1. Are all Non-conformances included and noted?  | , 1     |        | /      |
| 2. Are all required forms filled out?   | 1       |        |        |
| 3. Was the correct methodology used?  | 1       | -      |        |
| 4. Was transcription checked?   | )       |        |        |
| 5. Were all calculations checked at a minimum frequency?  | 9       |        |        |
| 6. Were units checked?  | 9       |        |        |

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Yes No N/A

Yes No N/A

Yeş

No N/A

No N/A

Yes No N/A

Yeş No N/A

Yes No N/A

Yes No N/A

No N/A

No N/A

No N/A

No N/A

No N/A

Yeş

Yeş

Page 1

No N/A

ATHER BY EN AIRCH MENT AL TESTIN

Lot No., Due Date:

J8F050177; 07/21/2008

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8164619; RSR85907 Sr-85/90 by GPC-7

SDG. Matrix:

W05419; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

2.0 QC Batch

- 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?
- 2.2 Are the QC appropriate for the analysis included in the batch?
- 2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?
- 2.4 Does the Worksheets include a Tracer Vial label for each sample?

3.0 QC & Samples

- 3.1 Is the blank results, yield, and MDA within contract limits?
- 3.2 Is the LCS result, yield, and MDA within contract limits?
- 3.3 Are the MS/MSD results, yields, and MDA within contract limits?
- 3.4 Are the duplicate result, yields, and MDAs within contract limits?
- 3.5 Are the sample yields and MDAs within contract limits?

4.0 Raw Data

- 4.1 Were results calculated in the correct units?
- 4.2 Were analysis volumes entered correctly?
- 4.3 Were Yielas entered correctly?
- 4.4 Were spectra reviewed/meet contractual requirements?
- 4.5 Were raw counts reviewed for anomalies?

5.0 Other

- 5.1 Are all nonconformances included and noted?
- 5.2 Are all required forms filled out?
- 5.3 Was the correct methodology used?
- 5.4 Was transcription checked?
- 5.5 Were all calculations checked at a minimum frequency?
- 5.6 Are worksheet entries complete and correct?
- 6.0 Comments on any No response:

Date 7-10-8

TAL Richland

QAS\_RADCALCV4.8.33 TESTAMERICA

First Level Review



## Data Review Checklist RADIOCHEMISTRY

Second Level Review

|  | Yes (√) | No (√) | NA (V |
|--|---------|--------|-------|
| A. Sample Analysis   |         |        |       |
| . Are the sample yields within acceptance criteria?  |         |        |       |
| . Is the sample Minimum Detectable Activity < the Contract   |         |        |       |
| Detection Limit?   |         |        |       |
| . Are the correct isotopes reported?   |         |        |       |
| B. QC Samples  Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit? |         |        |       |
| 2. Does the blank result meet the Contract criteria?   |         |        |       |
| 3. Is the blank result < the Contract Detection Limit?   |         |        |       |
| 1. Is the blank result > the Contract Detection Limit but the  |         |        |       |
| sample result < the Contract Detection Limit?  |         |        | -     |
| 5. Is the LCS recovery within contract acceptance criteria?  |         |        |       |
| 5. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?                              |         |        |       |
| 7. Do the MS/MSD results and yields meet acceptance criteria?  |         |        |       |
| 3. Do the duplicate sample results and yields meet acceptance criteria?                                | 1       |        |       |
| C. Other  1. Are all Non-conformances included and noted?  |         |        | _     |
| 2. Are all required forms filled out?  | -       |        |       |
| 3. Was the correct methodology used?   |         |        |       |
| 1. Was transcription checked?  |         |        |       |
| . Were all calculations checked at a minimum frequency?  |         |        |       |
| 6. Were units checked?   |         |        |       |

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6/30/2008 9:06:10 AM

THE LEADER IN ENVIRONMENTAL TESTING

Lot No., Due Date:

RADIOCHEMISTRY, First Level Review

Client, Site:

384868; PGW 615HANFORD HANFORD

J8E280299,J8F050164,J8F050177; 07/21/2008

QC Batch No., Method Test: 8164617; RGAMMA Gamma by GER

SDG, Matrix:

W05419; WATER

|     | COC Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?  | Yes | No    | N/A |
|-----|--|-----|-------|-----|
| 20  | QC Batch   | ×   | , · . |     |
|     | Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?  | Yes | No    | N/A |
| 2.2 | Are the QC appropriate for the analysis included in the batch?   | Yes | No    | N/A |
| 2.3 | Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?  | Yes | No    | N/A |
| 2.4 | Does the Worksheets include a Tracer Vial label for each sample?   | Yes | No    | N/A |
| 3.0 | QC & Samples   |     |       | •   |
|     | Is the blank results, yield, and MDA within contract limits?   | Yes | No    | N/A |
| 3.2 | Is the LCS result, yield, and MDA within contract limits?  | Yes | No    | N/A |
| 3.3 | Are the MS/MSD results, yields, and MDA within contract limits?  | Yes | No    | NA  |
| 3.4 | Are the duplicate result, yields, and MDAs within contract limits?   | Yes | No    | N/A |
| 3.5 | Are the sample yields and MDAs within contract limits?   | Yes | No    | N/A |
|     | Raw Data   | . T | ٠.;٠٠ |     |
| 4.1 | Were results calculated in the correct units?  | Yes | No    | N/A |
| 4.2 | Were analysis volumes entered correctly?   | Yes | No    | N/A |
| 4.3 | Were Yields entered correctly?   | Yes | No    | NA  |
| 4.4 | Were spectra reviewed/meet contractual requirements?   | Yes | No    | N/A |
| 4.5 | Were raw counts reviewed for anomalies?  | Yes | No    | N/A |
| 5.0 | Other Country of All Angeles (All Schools and All Angeles and Ange |     |       |     |
| 5.1 | Are all nonconformances included and noted?  | Yes | No    | NA  |
| 5.2 | Are all required forms filled out?   | Yes | No    | N/A |
| 5.3 | Was the correct methodology used?  | Yes | No    | N/A |
| 5.4 | Was transcription checked?   | Yes | No    | N/A |
| 5.5 | Were all calculations checked at a minimum frequency?  | Yes | No    | N/A |
| 5.6 | Are worksheet entries complete and correct?  | Yes | No    | N/A |
| 6.0 | Comments on any No response:   | 4   |       |     |
| 4   |  |     |       |     |

First Level Review

AL Richland



## Data Review Checklist RADIOCHEMISTRY

Second Level Review

| Review Item   | Yes (√) | No (V) | NA (v |
|---|---------|--------|-------|
| A. Sample Analysis  |         |        | 1     |
| 1. Are the sample yields within acceptance criteria?                                      | /       |        | V     |
| 2. Is the sample Minimum Detectable Activity < the Contract                               |         |        | ,     |
| Detection Limit?  | V/      |        |       |
| 3. Are the correct isotopes reported?   | V       |        |       |
| B. QC Samples   | 1       |        |       |
| 1. Is the Minimum Detectable Activity for the blank result ≤the Contract Detection Limit? | 1/      |        |       |
| 2. Does the blank result meet the Contract criteria?                                      | 1       |        |       |
| 3. Is the blank result < the Contract Detection Limit?                                    | J       |        | ,     |
| 4. Is the blank result > the Contract Detection Limit but the                             |         |        | 1     |
| sample result < the Contract Detection Limit?   | /       |        | /     |
| 5. Is the LCS recovery within contract acceptance criteria?                               | 1       |        |       |
| 5. Is the LCS Minimum Detectable Activity ≤the Contract                                   | 7       |        |       |
| Detection Limit?  | V       |        |       |
| 7. Do the MS/MSD results and yields meet acceptance criteria?                             |         |        | V     |
| 3. Do the duplicate sample results and yields meet acceptance criteria?                   |         |        | /     |
| C. Other  |         |        | 1/    |
| . Are all Non-conformances included and noted?  |         |        | •     |
| 2. Are all required forms filled out?   | V       |        |       |
| 3. Was the correct methodology used?  | 1       |        |       |
| Was transcription checked?  | 1       |        |       |
| . Were all calculations checked at a minimum frequency?                                   |         |        |       |
| b. Were units checked?  | J       |        |       |

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#### RADIOCHEMISTRY, First Level Review

Lot No., Due Date:

J8E280293,J8E280295,J8E280299,J8E230328,J8F040162,J8F040165,J8F050164,J8F050177;

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8164618; RGAMLEPS Gamma by LEPS

SDG, Matrix:

W05419; WATER

| 1 | .1 | Is | the | ICO |
|---|----|----|-----|-----|
|   |    |    |     |     |

1.0 COC

C page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A

Yes No N/A

#### 2.0 QC Batch

- 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?
- Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch?

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample?

### Yes No N/A

#### 3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yeş No N/A

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A

#### 4.0 Raw Data

4.1 Were results calculated in the correct units?

No N/A Yeg

4.2 Were analysis volumes entered correctly?

No N/A Yeş

4.3 Were Yields entered correctly?

No N/A

4.4 Were spectra reviewed/meet contractual requirements?

No N/A

4.5 Were raw counts reviewed for anomalies?

No N/A

#### 5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A

5.2 Are all required forms filled out?

No N/A Yeş

5.3 Was the correct methodology used?

No N/A Yes

5.4 Was transcription checked?

No N/A Yeş

5.5 Were all calculations checked at a minimum frequency?

Yeş No N/A

5.6 Are worksheet entries complete and correct?

Yes No N/A

3.0 Comments on any No response:

First Level Review

TAL Richland QAS\_RADCALCv4.8.33 ESTAMERICA



#### Data Review Checklist RADIOCHEMISTRY Second Level Review

| Batch Number: | 816461 | X |
|---------------|--------|---|
|---------------|--------|---|

| Yes (\sqrt{y}) | No (\sqrt{s}) | NA (                                  |
|----------------|---------------|---------------------------------------|
|                |               | /                                     |
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| V/             |               |                                       |
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1987 ICADED IN ENVIRONMENTAL PESTING

Lot No., Due Date:

J8F050164; 07/21/2008

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8192442; RSE79 Se-79 by LSC

SDG, Matrix:

8164621 SES 7/21/08 W05419; WATER

| П | 4 | 0  | CO | ~ |
|---|---|----|----|---|
| 1 | u | ·U | CO |   |

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A

#### 2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A

#### 3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits?

## Yes No N/A

#### 4.0 Raw Data

4.1 Were results calculated in the correct units?

4.2 Were analysis volumes entered correctly?

Yes No N/A Yes No N/A

4.3 Were Yields entered correctly?

Yes No N/A

4.5 Were raw counts reviewed for anomalies?

4.4 Were spectra reviewed/meet contractual requirements?

No N/A

#### 5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A

5.2 Are all required forms filled out?

Yes No N/A

5.3 Was the correct methodology used?

Yes No N/A

5.4 Was transcription checked?

Yes No N/A Yes No N/A

5.5 Were all calculations checked at a minimum frequency?

5.6 Are worksheet entries complete and correct?

Yes No N/A

6.0 Comments on any No response: Please see NCM # 10-12701

First Level Review

TAL Richland QAS\_RADCALCV4.8.33 TESTAMERICA

Date 7-18-8



## Data Review Checklist RADIOCHEMISTRY

Second Level Review

| Review Item  | Yes (V) | No (V) | NA (V) |
|--|---------|--------|--------|
| A. Sample Analysis   |         |        |        |
| . Are the sample yields within acceptance criteria?  |         |        |        |
| 2. Is the sample Minimum Detectable Activity < the Contract  |         |        |        |
| Detection Limit?   |         |        |        |
| 3. Are the correct isotopes reported?  |         |        |        |
| <ul> <li>B. QC Samples</li> <li>1. Is the Minimum Detectable Activity for the blank result ≤ the</li> <li>Contract Detection Limit?</li> </ul> |         |        |        |
| 2. Does the blank result meet the Contract criteria?   |         |        |        |
| 3. Is the blank result < the Contract Detection Limit?   |         |        |        |
| 4. Is the blank result > the Contract Detection Limit but the  |         |        |        |
| sample result < the Contract Detection Limit?  |         |        | /      |
| 5. Is the LCS recovery within contract acceptance criteria?  |         |        |        |
| 6. Is the LCS Minimum Detectable Activity ≤ the Contract   |         |        |        |
| Detection Limit?   |         |        |        |
| 7. Do the MS/MSD results and yields meet acceptance criteria?  |         |        |        |
| 8. Do the duplicate sample results and yields meet acceptance  |         |        |        |
| criteria?  | -       |        |        |
| C. Other  1. Are all Non-conformances included and noted?  |         |        |        |
| 2. Are all required forms filled out?  |         |        |        |
| 3. Was the correct methodology used?   | -       |        |        |
| 4. Was transcription checked?  |         |        |        |
| 5. Were all calculations checked at a minimum frequency?   |         |        | -      |
| 6. Were units checked?   |         |        |        |
| o. Were units checked?   |         |        |        |

#### Clouseau Nonconformance Memo



NCM #: 10-12701

NCM Initiated By: John Norton Date Opened: 07/18/2008

Date Closed:

Classification: Anomaly

Status: GLREVIEW

Production Area: Environmental - Sep

Tests: None

Lot #'s (Sample #'s): J8F050164 (1),

QC Batches: None.,

Nonconformance: Tracer yield out of limits

Subcategory: Unknown

Problem Description / Root Cause

Name John Norton Date

Description

07/18/2008

This sample provided a low tracer yield and did not meet the CRDL.

Corrective Action

Name

Date

**Corrective Action** 

John Norton 07/18/2008

The sample was re-analyzed in batch # 8192442.

Client Notification Summary

Client

**Project Manager** 

**Notified** 

Response How Notified

Note

Response

**Response Note** 

Quality Assurance Verification

Verified By

**Due Date** 

Status

Notes

This section not yet completed by QA.

Approval History

**Date Approved** 

Approved By

**Position** 

Date Printed: 7/18/2008

THE LEADER IN ENVIRONMENTAL TESTING

Lot No., Due Date:

J8E280299,J8F050164; 07/21/2008

Client, Site:

384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8164624; RC14 C-14 by LSC

SDG. Matrix:

W05419: WATER

| W05419; WATER  |  |  |  |
|--|--|--|--|
| ion Protocol Used.   | Yeg 1  | No   | N/A  |
| flethods Were Used To Analyze the Samples  | Yey N  | No   | N/A  |
| in the Appropriate Activity Units  | Yes 1  | No   | N/A  |
| e Required OC Appropriate for the Method   | V  |  |  |
|  |  | 40   | IN/  |
|  | Yes  | 4o   | N/A  |
| opriately Traced Before or After Fractionating the Sample  | Yea N  | 10   | N/A  |
| ium Sample Volume Was Used   | Yes N  | No !   | N/A  |
| Geometry was Used.   | Yes N  | lo l   | N/A  |
| Counted for the Minimum Count Time or CRDL was Achieved.   | Year N   | 10   | N/A  |
| ithin Control Limits.  | Yes N  | lo l   | N/A  |
|  | •  |  |  |
|  | Yes N  | lo l   | N/A  |
|  | Yes N  | lo I   | N/A  |
|  |  |  |  |
| KN1JX1AJ C-14 3800.0 (RPD)   |  | /  |  |
|  | Yes N  | lo I   | N/A  |
|  | Yes N  | 0 1  | NA   |
|  | Yes N  | lo I   | NA   |
| rol Limits.  | Yes N  | lo I   | NA   |
| e Minimum Tracer Yield (No Failed Samples)   | Yes N  | lo I   | NA   |
|  | Yeş N  | lo I   | N/A  |
|  | •  |  |  |
| y Not Detected, U Flag.  | Yes N  | lo I   | N/A  |
|  |  | 4  | 4  |
|  | 7  | U  | WA   |
|  | Yes N  | 0 1  | N/A  |
|  | V  |  |  |
|  | Ves M  | 0.4  | AI/A   |
| ior roo rrogalito.   |  | 0 1  | WA   |
| n are within FWHM Limits.  | Yes N  | 0 1  | MA   |
| THE PARTY OF THE P | In the Appropriate Activity Units  Required QC Appropriate for the Method  In and QC Vials Where Used in the Samples  Depriately Traced Before or After Fractionating the Sample  In a Sample Volume Was Used  It Geometry was Used.  Counted for the Minimum Count Time or CRDL was Achieved.  It in Control Limits.  It | in Protocol Used.  Aethods Were Used To Analyze the Samples in the Appropriate Activity Units  Propriate Activity Units  Propriate Activity Units  Propriate Propriate for the Method  Propriate OC Vials Where Used in the Samples  Propriately Traced Before or After Fractionating the Sample  Propriate Sample Volume Was Used  Propriate Geometry was Used.  Propriate Counted for the Minimum Count Time or CRDL was Achieved.  Propriate Counted for the Minimum Count Time or CRDL was Achieved.  Propriate Counted for the Minimum Count Time or CRDL was Achieved.  Propriate Counted for the Minimum Counted Limits.  Propriate Samples  Propriate Counted for the Minimum Counted Limits.  Propriate Equation Value within Control Limits.  Propriate Control Limits. | Methods Were Used To Analyze the Samples in the Appropriate Activity Units Peg No in the Appropriate Activity Units Required QC Appropriate for the Method Peg No ir and QC Vials Where Used in the Samples Peg No priately Traced Before or After Fractionating the Sample Peg No priately Traced Before or After Fractionating the Sample Peg No |

TAL Richland

CAS\_RADCALCV4.8.33 TESTAMERICA

8.27 Correct Count Library Used.

No Count Library found in Batch Data!

Yes No N/A

8.28 Instrument Background within Limits at Time of Counting. (Not Applicable to this version. To be developed in later versions No N/A

8.29 Instrument Check Source within Limits at the Time of Counting. (Not Applicable to this version. To be developed in later versionals.) N/A

8.3 Comments:

8.31 Results Blank Subtracted as Appropriate.

OH

Yes No N/A

First Level Review

TAL Richland

QAS\_RADCALCv4.8.33

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#### Data Review Checklist RADIOCHEMISTRY Second Level Review

| Review Item   | Yes (√) | No (\sqrt{s}) | NA ( |
|---|---------|---------------|------|
| A. Sample Analysis  |         |               | 1    |
| Are the sample yields within acceptance criteria?   | /       |               |      |
| 2. Is the sample Minimum Detectable Activity < the Contract   |         |               |      |
| Detection Limit?  | 1/      |               |      |
| 3. Are the correct isotopes reported?   |         |               |      |
| B. QC Samples  I. Is the Minimum Detectable Activity for the blank result ≤the Contract Detection Limit?    | 1       |               |      |
| 2. Does the blank result meet the Contract criteria?  | 1,      |               |      |
| 3. Is the blank result < the Contract Detection Limit?  |         |               |      |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit? | /       |               | /    |
| 5. Is the LCS recovery within contract acceptance criteria?   | /.      |               |      |
| 6. Is the LCS Minimum Detectable Activity ≤the Contract Detection Limit?                                    | 1       |               | /    |
| 7. Do the MS/MSD results and yields meet acceptance criteria?   | ,       |               |      |
| Do the duplicate sample results and yields meet acceptance criteria?  |         |               |      |
| C. Other  |         |               | ./   |
| . Are all Non-conformances included and noted?  | /       |               | V    |
| 2. Are all required forms filled out?   | 1       |               |      |
| 3. Was the correct methodology used?  |         |               |      |
| l. Was transcription checked?   |         |               |      |
| 5. Were all calculations checked at a minimum frequency?  |         |               |      |
| 6. Were units checked?  | )       |               |      |

LS-038B, Rev. 10, 9/07

. IO FIGHT & OTHER CHOCKING IVSI7 TITIVITU ADER BY ENVIRONMENTAL TOUTHY RADIOCHEMISTRY, First Level Review Lot No., Due Date: J8F050162; 07/21/2008 Client, Site: 384868; PGW 615HANFORD HANFORD QC Batch No., Method Test: 8164620; RUNAT UNat by KPA SDG, Matrix: W05419: WATER 1.0 COC 1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A QC Batch
 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A 2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A 2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A 2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A 3.0 QC & Samples 3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A 3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A 3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A 3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A 3.5 Are the sample yields and MDAs within contract limits? Yes No N/A 4.0 Raw Data 4.1 Were results calculated in the correct units? Yes No N/A 4.2 Were analysis volumes entered correctly? Yes No N/A 4.3 Were Yields entered correctly? Yes No N/A 4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A 4.5 Were raw counts reviewed for anomalies? Yes No N/A 5.0 Other 5.1 Are all nonconformances included and noted? Yes No N/A 5.2 Are all required forms filled out? Yes No N/A 5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked?

5.5 Were all calculations checked at a minimum frequency?

5.6 Are worksheet entries complete and correct?

6.0 Comments on any No response:

**First Level Review** 

7-168

TAL Richland

QAS RADCALCV4.8.33 TESTAMERICA

Page 1

Yes No N/A

Yes No N/A

No N/A



#### Data Review Checklist RADIOCHEMISTRY Second Level Review

|               | 8164620 |
|---------------|---------|
| Batch Number: | 0149660 |

| Review Item   | Yes (√) | No (√) | NA (√) |
|---|---------|--------|--------|
| A. Sample Analysis  |         |        | 1      |
| 1. Are the sample yields within acceptance criteria?  |         |        | 1      |
| 2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?  | L.      |        |        |
| 3. Are the correct isotopes reported?   |         |        |        |
| <ul> <li>B. QC Samples</li> <li>1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?</li> </ul> |         |        |        |
| 2. Does the blank result meet the Contract criteria?  |         |        |        |
| 3. Is the blank result < the Contract Detection Limit?  |         |        |        |
| 4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?                           |         |        | L      |
| 5. Is the LCS recovery within contract acceptance criteria?   | 1.      |        |        |
| 6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?   |         |        |        |
| 7. Do the MS/MSD results and yields meet acceptance criteria?   |         |        |        |
| 8. Do the duplicate sample results and yields meet acceptance criteria?   |         |        |        |
| C. Other 1. Are all Non-conformances included and noted?  |         |        | L.     |
| 2. Are all required forms filled out?   | -       |        |        |
| 3. Was the correct methodology used?  |         |        |        |
| 4. Was transcription checked?   | /       |        |        |
| 5. Were all calculations checked at a minimum frequency?  | /       |        |        |
| 6. Were units checked?  |         |        |        |

| Comments on any "No" response: |               |
|--------------------------------|---------------|
|                                |               |
| Second Level Review: Odu       | Date: 7/17/08 |



#### **Richland Laboratory Data Review Check List Hexavalent Chromium**

| Batch Number(s): 8151262   | 2999       |        |            |                                     |
|--|------------|--------|------------|-------------------------------------|
| Method/Test/Parameter: Cr+6 in Water / RICH-WC-5003  |            |        |            |                                     |
| Review Item  | Yes<br>(✓) | No (🗸) | N/A<br>(*) | 2 <sup>nd</sup> Level<br>Review (✓) |
| A. Initial Calibration     Performed at required frequency with required number of levels?                                   | 1          |        |            | 1                                   |
| 2. Correlation coefficient within QC limits?   | 1          |        |            | /                                   |
| 3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?               | 1          |        |            | /                                   |
| 4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of<br>all parameters ≤ reporting limit? | 1          |        |            | 1                                   |
| B. Continuing Calibration  | 1          |        |            |                                     |
| CCV analyzed at required frequency and all parameters within QC limits?  |            |        |            | /                                   |
| <ol> <li>CCB analyzed at required frequency and all results ≤ reporting limit?</li> </ol>                                    | 1          |        |            |                                     |
| C. Sample Analysis  1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed? | 1          |        |            | ,                                   |
| 2. Were all sample holding times met?  | 1          |        |            | /                                   |
| D. QC Samples  1. All results for the preparation blank below limits?  | 1          |        |            | /                                   |
| 2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?   | 1          |        |            | /                                   |
| 3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?   | 1          |        |            | /                                   |
| 4. Analytical spikes within QC limits where applicable?  |            |        | 1          | /                                   |
| 5. ICP only: One serial dilution performed per SDG?  |            |        | 1          | /                                   |
| 6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?  |            |        | 1          | /                                   |
| 7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?   |            |        | 1          | /                                   |

| Review Item  | Yes (✓)  | No<br>(✓) | N/A<br>(✓) | 2 <sup>nd</sup> Level<br>Review (✓) |
|--|----------|-----------|------------|-------------------------------------|
| E. Other   | 1        |           |            |                                     |
| 1. Are all nonconformances included and noted?                         |          |           |            | _                                   |
| 2. Is the correct date and time of analysis shown?                     | 1        |           |            | -                                   |
| 3. Did the analyst sign and date the front page of the analytical run? | <b>V</b> |           |            | /                                   |
| 4. Correct methodology used?   | <b>√</b> |           |            | /                                   |
| 5. Transcriptions checked?   | 1        |           |            | -                                   |
| 6. Calculations checked at minimum frequency?                          | ✓        |           |            | /                                   |
| 7. Units checked?  | 1        |           |            | 1                                   |

| Comments on any "No" response: | ×              |
|--------------------------------|----------------|
|                                |                |
| Analyst: Leuf I                | Date: 5/30/08  |
| Second-Level Review: 1 Letty   | Date: 67/08/08 |



#### **Richland Laboratory Data Review Check List Hexavalent Chromium**

| Batch Number(s): 8154426   | 419        |           |            |                                     |
|--|------------|-----------|------------|-------------------------------------|
| Method/Test/Parameter: Cr+6 in Water / RICH-WC-5003  | ***        |           |            |                                     |
| Review Item  | Yes<br>(✓) | No<br>(✓) | N/A<br>(✓) | 2 <sup>nd</sup> Level<br>Review (✓) |
| A. Initial Calibration   | ~          |           |            |                                     |
| Performed at required frequency with required number of levels?     Correlation coefficient within QC limits?                | 1          | +         |            | /                                   |
| 3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?               | 1          |           |            | -                                   |
| 4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of<br>all parameters ≤ reporting hmit?  | 1          |           |            | -                                   |
| B. Continuing Calibration  1. CCV analyzed at required frequency and all parameters within QC limits?                        | 1          |           |            | -                                   |
| <ol> <li>CCB analyzed at required frequency and all results ≤ reporting limit?</li> </ol>                                    | 1          |           |            | -                                   |
| C. Sample Analysis  1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed? | 1          |           |            |                                     |
| 2. Were all sample holding times met?  | 1          |           |            | -                                   |
| D. QC Samples     All results for the preparation blank below limits?  | 1          |           |            | -                                   |
| 2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?   | 1          |           |            | -                                   |
| 3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?   | 1          |           |            | -                                   |
| 4. Analytical spikes within QC limits where applicable?  |            |           | 1          | -                                   |
| 5. ICP only: One serial dilution performed per SDG?  |            |           | 1          | _                                   |
| 6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?  |            |           | 1          | -                                   |
| 7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?   |            |           | 1          | 1                                   |

| Review Item   | Yes<br>(✓) | No<br>(✓) | N/A<br>(✓) | 2 <sup>nd</sup> Level<br>Review (✓) |
|---|------------|-----------|------------|-------------------------------------|
| E. Other  | 1          |           |            |                                     |
| Are all nonconformances included and noted?                         |            |           |            | _                                   |
| 2. Is the correct date and time of analysis shown?                  | 1          |           |            | -                                   |
| Did the analyst sign and date the front page of the analytical run? | 1          |           |            | _                                   |
| Correct methodology used?   | <b>✓</b>   |           |            | -                                   |
| 5. Transcriptions checked?  | ✓          |           |            | -                                   |
| 6. Calculations checked at minimum frequency?                       | 1          |           |            | -                                   |
| 7. Units checked?   | 1          |           |            | /                                   |

| Comments on any "No" response: |                |
|--------------------------------|----------------|
|                                |                |
| Analyst: Lewi Di               | Date: 6/3/08   |
| Second-Level Review:           | Date: 07/08/08 |



# Richland Laboratory Data Review Check List Hexavalent Chromium

| Batch Number(s): 8155503 (005419 78 + 030292   | 8 78       | F 04   | 0186 |                                     |
|--|------------|--------|------|-------------------------------------|
| Lab Sample Numbers or  | -          |        |      |                                     |
| Method/Test/Parameter: Cr+6 in Water / RICH-WC-5003  |            |        |      |                                     |
| Review Item  | Yes<br>(✓) | No (🗸) |      | 2 <sup>nd</sup> Level<br>Review (✓) |
| A. Initial Calibration   | 1          |        |      |                                     |
| Performed at required frequency with required number of levels?  |            |        |      | /                                   |
| 2. Correlation coefficient within QC limits?   | 1          |        |      | /                                   |
| 3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?               | 1          |        |      | /                                   |
| 4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of<br>all parameters ≤ reporting limit? | 1          |        |      | /                                   |
| B. Continuing Calibration  | 1          |        |      |                                     |
| 1. CCV analyzed at required frequency and all parameters within QC limits?   |            |        |      |                                     |
| 2. CCB analyzed at required frequency and all results ≤ reporting limit?   | 1          |        |      | -                                   |
| C. Sample Analysis  1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed? | 1          |        |      |                                     |
| 2. Were all sample holding times met?  | 1          |        |      | -                                   |
| QC Samples     All results for the preparation blank below limits?   | 1          |        |      |                                     |
| 2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?   | 1          |        |      |                                     |
| 3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?   | 1          |        |      | -                                   |
| 4. Analytical spikes within QC limits where applicable?  |            |        | 1    | /                                   |
| 5. ICP only: One serial dilution performed per SDG?  |            |        | 1    |                                     |
| 6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?  |            |        | 1    |                                     |
| 7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?   |            |        | 1    |                                     |

| Review Item   | Yes<br>(✓) | No<br>(✓) | N/A<br>(✓) | 2 <sup>nd</sup> Level<br>Review (✓) |
|---|------------|-----------|------------|-------------------------------------|
| E. Other  | <b>~</b>   |           |            |                                     |
| Are all conconformances included and noted?                         |            |           |            | -                                   |
| 2. Is the correct date and time of analysis shown?                  | 1          |           |            |                                     |
| Did the analyst sign and date the front page of the analytical run? | 1          |           |            | /                                   |
| Correct methodology used?   | 1          |           |            | /                                   |
| 5. Transcriptions checked?  | 1          |           |            | /                                   |
| 6. Calculations checked at minimum frequency?                       | 1          |           |            | /                                   |
| 7. Units checked?   | 1          |           |            | 1                                   |

| Comments on any "No" response: |                |
|--------------------------------|----------------|
|                                |                |
| 0.1                            |                |
| Analyst:                       | Date: 6/3/08   |
| Second-Level Review:           | Date: 07/08/08 |

| FLUOR HA  | NFORD             |            |                  |                 | CHAIN            | V OF                          | CUSTODY                  | SAMPLE                                       | ANALYSIS                                 | REQUEST                       | I08-038-61   |                       |
|---|-------------------|------------|------------------|-----------------|------------------|-------------------------------|--------------------------|--|--|-------------------------------|--|-----------------------|
|   |                   |            | 78               | EZ3             | 0328             | <u> </u>                      | 205419                   | DUET   | 708 KM                                   | TWQ                           | Page 1 of 1  |                       |
| Collector   |                   |            |                  |                 | C                | Contact/Requester Steve Trent |                          |  |  | Telephone No.<br>509-373-5869 | MSIN   | FAX                   |
| SAF No.   |                   |            |                  |                 | S                | Sampling C                    |                          |  |  | Purchase Order                |  |                       |
| 108-038   |                   |            |                  |                 |                  | Hanford                       | Site                     | -  |  |                               |  |                       |
| Project Title<br>2ZPL MAY 200                           | 8                 |            |                  |                 |                  | HNF                           | -N-506                   | - 10   |  | Ice Chest No.                 | W5-089 Tes   | mp.                   |
| Shinned To (Lab)  |                   |            |                  |                 |                  | Method of                     | Shipment                 |  |  | Bill of Lading/A              |  |                       |
| TestAmerica Inc   | ornorated Ric     | hland      |                  |                 |                  | Govt. Ve                      |                          |  |  | Offsite Property              | . No   |                       |
| CERCLA  |                   |            |                  |                 |                  |                               | Pri                      | ority: 45 Days                               |  | Olisite Property              |  |                       |
| POSSIBLE SAMP  ** ** Contains Rac releasable per DOE Or | lioactive Materia | al at cond |                  | ire not regulat | ted for transpor | rtation per 49                | CFR but are not          | SPECIAL INSTE<br>200 Area Generator          | RUCTIONS Ho<br>r Knowledge Information I | ld Time<br>form applies.      | Total Activity F   | exemption: Yes 🗹 No 🗍 |
| Sample No.  | Lab ID            |            | Date             | Time            | No/Type (        | Container                     |                          |  | Sample Analysis                          |                               |  | Preservative          |
| B1V6L4  |                   | W          | 5/20/08          | 1322            | 1x20-mL          | Р                             | Activity Scan            |  |  |                               | None   |                       |
| B1V6L4  |                   | W          | V                |                 | 2x4000-m         | IL G/P                        | I129LL_SEP_LE            | PS_GS_LL: I-129                              | (1)                                      |                               | None   |                       |
|   |                   |            |                  | 1               |                  |                               |                          |  |  |                               |  |                       |
|   |                   |            |                  |                 |                  |                               |                          |  |  |                               |  |                       |
| - LI  |                   | $\sqcup$   |                  |                 |                  |                               |                          | W. B. S. |  |                               |  |                       |
|   |                   |            |                  |                 |                  |                               |                          |  |  |                               |  |                       |
|   |                   | $\vdash$   |                  |                 |                  |                               |                          |  |  |                               |  |                       |
|   | ļ                 |            |                  |                 |                  |                               |                          |  |  |                               |  |                       |
|   |                   | $\vdash$   |                  |                 |                  |                               |                          | ~~~  |  |                               |  |                       |
|   |                   | $\vdash$   |                  |                 | -                |                               |                          |  |  |                               |  |                       |
|   |                   | -          |                  | ,               | -                |                               |                          |  |  |                               |  |                       |
|   |                   | $\vdash$   |                  |                 | -                |                               |                          |  |  |                               |  |                       |
|   |                   | +          |                  |                 |                  |                               |                          |  |  |                               |  |                       |
|   |                   | +          |                  |                 |                  |                               |                          |  |  |                               |  |                       |
|   |                   | -          |                  |                 | -                |                               |                          |  |  |                               |  |                       |
|   |                   | 1          |                  |                 |                  |                               |                          |  |  |                               |  |                       |
| Relinquished By R. D. Ju Relinquished By                | Print<br>flan     | 1          |                  | _               | Date/Ti          | 8 1036                        | Received By  Received By | Print 3                                      | Sign 5/                                  | Date/Time                     | S = Soil<br>SE = Sedir                                   |                       |
|   | se ]              | A.         | Hila             | 5/2             | 1                | 12:15                         | Received By              | h S. Sm                                      | nith :                                   | 5/23/08 (2<br>Date/Time       | SO - Solid<br>SI Sludi<br>W - Wate<br>O - Oil<br>A = Air | e WI - Wine           |
| Relinquished By   |                   |            |                  |                 | Date/Ti          | ime                           | Received By              |  |  | Date/Time                     |  |                       |
| FINAL SAMPL<br>DISPOSITION                              |                   | Method     | (e.g., Return to | customer, per   | lab procedure,   | used in proc                  | eess)                    |  | Disposed By                              |                               |  | Date/Time             |

| FLUOR HAN   | NFORD            |        |                  |                 | CHAIN  |                             |   |  |        |                | REQUEST                                  |             |                                 | 108-0                     | 38-58   |
|---|------------------|--------|------------------|-----------------|--|-----------------------------|---|--|--------|----------------|--|-------------|---------------------------------|---------------------------|---|
|   |                  |        | 181              | EZ3C            | 328  | 1                           | NO5419  | Due  | = 7    | 708            | KNTWG                                    | ,           | Pag                             | e <u>1</u> of             | 1   |
| ollector  |                  |        |                  |                 | Co   | ontact/Re                   | equester  |  |        |                | Telephone No.<br>509-373-5869            | N           | FAX                             |                           |   |
| AF No.  |                  |        |                  |                 | Sa   | Steve Trent Sampling Origin |   |  |        | Purchase Order |  | le          |                                 |                           |   |
| 108-038   |                  |        |                  |                 |  | Hanford                     | Site  |  |        |                |  |             |                                 |                           |   |
| roject Title<br>2ZPL MAY 2008   | 2                |        |                  |                 |  | NN                          | F-N-50  | 0-10   |        |                | Ice Chest No                             | BUS -00     | 7 Temp.                         |                           |   |
| pinned To (Lab)   |                  |        |                  |                 | М  | ethod of                    | Shipment  |  |        |                | Bill of Lading/A                         | ir Bill No. |                                 |                           |   |
| TestAmerica Inco  | ornorated Ric    | hland. |                  |                 |  | Govt. Ve                    |   |  |        |                | Office Process                           | NI-         |                                 |                           |   |
| rotocol<br>CERCLA   |                  |        |                  |                 |  |                             | Pri   | ority: 45 Days   |        |                | Offsite Property                         |             |                                 |                           |   |
| OSSIBLE SAMPI | ioactive Materia | at con | centrations that | are not regulat | ed for transporta                            | ation per 49                | OCFR but are not                                | SPECIAL INS<br>200 Area Gener  |        |                | old Time<br>Form applies.                | Total       | Activity Exem                   | ption: Yes                | ▼ No  |
| Sample No.  | Lab ID           |        | Date             | Time            | No/Type Co                                   | ontainer                    |   | <u> </u>   | Sam    | ole Analysis   |  |             |                                 | Preservat                 | ive   |
| B1V6L0  |                  | W      | 5/20/08          | 1250            | 1x20-mL F                                    | 5                           | Activity Scan                                   |  |        |                |  | None        |                                 |                           |   |
| B1V6L0  |                  | W      | 1                | *               | 2x4000-mL                                    | G/P                         | I129LL_SEP_LE                                   | PS_GS_LL: I-12   | 29 (1) |                |  | None        |                                 |                           |   |
|   |                  |        |                  |                 |  |                             |   |  |        |                |  |             |                                 |                           |   |
| Relinquished By  Relinquished By  KBH  Relinquished By  Relinquished By   |                  | de     | Sal.             | _ · 5,          | Date/Tin  /23/68  Date/Tin  /23/68  Date/Tin | 12:                         | Received By Received By Received By Received By | e State of the Sta | Smil   | lae<br>L       | Date/Time  5/23/08  Date/Time  Date/Time | S           | = Soil<br>= Sediment<br>= Solid | DI.<br>T<br>WI<br>I.<br>V | = Drum Solid = Drum Linn = Tissue = Wine = Limid = Vecetation - Other |
| Kennquished By  |                  |        |                  |                 | Date In                                      | 110                         | Received By                                     |  |        |                | Date: I file                             |             |                                 |                           |   |
|   |                  |        |                  |                 |  |                             |   |  |        |                |  |             |                                 |                           |   |



| Date  | Time Received: 25/                                   | 23/08 12:15               | GM Screen R  | lesult .07                       |          |  |  |  |
|-------|--|---------------------------|--|----------------------------------|----------|--|--|--|
|       | nt: Pow  | ,                         | 5419 NALI SAF  |                                  | NA[]     |  |  |  |
| Wor   | k Order Number: <u>18E</u>                           | 230328                    | Chain of Custody #   | I68-038-6.                       | 1,58     |  |  |  |
| Ship  | pping Container ID:                                  |                           | Air Bill #   |                                  |          |  |  |  |
| !.    | Custody Seals on shipping of                         | container intact?         | NA[] Yes[]   | No[]                             |          |  |  |  |
| 2.    | Custody Seals dated and sig                          | ned?                      | NA[] Yes   | No [ }                           |          |  |  |  |
| 3.    | Chain of Custody record pre                          | esent?                    | NA[] Yes   | No [ ]                           |          |  |  |  |
| 4.    | Cooler Temperature:                                  | NA M                      | . Vermiculite/packing mat  | erials is NA Wet                 | [] Dry[] |  |  |  |
| 6.    | Number of samples in shipp                           | ing container: 2          |  |                                  |          |  |  |  |
| 7.    | Sample holding times excee                           | ded?                      | NA [] Yes []   | No [ ]                           |          |  |  |  |
| 8     | Samples have: Tape Custody Seals                     |                           | Hazard Approp  | l Lables<br>priate Sample Lables |          |  |  |  |
| 9.    | Samples are: In Good Condition Broken                | on                        | Leaking  Have Air Bubbles  (Only for samples requiring no head space.) |                                  |          |  |  |  |
| 10.   | Sample pH taken? NA [ ]                              | pH<2[] pH>2[]             | pH>9[] Amount H  | NO <sub>3</sub> Added No         | ne       |  |  |  |
| 11.   | Sample Location, Sample C *For documentation only. N | ollector Listed? *        | i.   |                                  |          |  |  |  |
| 12.   | Were any anomalies identifi                          | ed in sample receipt?     | Yes [ ]  | No [/]                           |          |  |  |  |
| 13.   | Description of anomalies (in                         | iclude sample numbers): _ |  | /                                |          |  |  |  |
| Sam   | ple Custodian:                                       | Im. Un                    |  | Date: 05/23                      | 108      |  |  |  |
|       | Client Sample ID                                     | Analysis Requested        | Condition  | Comments/A                       | ction    |  |  |  |
|       |  |                           |  |                                  |          |  |  |  |
| Clien | nt Informed on                                       | by                        | Person Conta   | cted                             |          |  |  |  |
| []    | No action necessary; process a                       | s is.                     |  |                                  |          |  |  |  |
|       |  |                           |  |                                  |          |  |  |  |
| Proje | ect Manager  |                           | Date   |                                  |          |  |  |  |

| FLUOR HAN   | NFORD            |          |         |                | CHAIN (                | OF C       | CUSTODY/        | SAMPLI         |                                     | SIS REQUE                          | EST                     | C.0.0        |            | 8-005-328                         |
|---|------------------|----------|---------|----------------|------------------------|------------|-----------------|----------------|-------------------------------------|------------------------------------|-------------------------|--------------|------------|-----------------------------------|
|   |                  |          |         | J              | 8E2802                 | 93         | wo              | 5419           | Due O                               | 71105                              |                         |              | Page 1     | of <u>1</u>                       |
| olic R.D. Julean                                      |                  |          |         |                |                        | act/Red    |                 |                |                                     | Telephone                          |                         | MSIN         | FAX        |                                   |
| F No.   |                  | _        |         |                |                        | ove Trer   |                 |                |                                     | 509-373-                           | 5869<br>Order/Charge Co | da           |            |                                   |
| W08-005   |                  |          |         |                |                        | anford S   |                 |                |                                     | Furchase                           | rder/Charge Co          | ac.          |            |                                   |
| oiect Title   |                  |          |         |                |                        |            |                 |                |                                     | Ice Chest N                        | ig.                     | Te           | mp.        |                                   |
| RCRA, MAY 200   | 08               |          |         |                |                        | HN         | 14-1V-506       | -12            |                                     |                                    | oul                     |              |            |                                   |
| inned To (Lah) TestAmerica Inco                       | tol Die          | -land    |         |                |                        | ood of S   | hipment         |                |                                     | Bill of Ladi                       | ing/Air Bill No.        |              |            |                                   |
| otocol  | rnorated Ric     | niana    |         | www.alimia-c.  | - GC                   | ovi. Ven   |                 |                |                                     | Offsite Pro                        | perty No.               |              | ***        |                                   |
| RCRA  |                  |          |         |                |                        |            | Pric            | ority: 45 Days |                                     | Onside 110                         |                         |              |            |                                   |
| DSSIBLE SAMPI  4 44 Contains Radi easable per DOE Ord | ioactive Materia | i at con |         | are not regula | Med for transportation | n per 49 ( | CFR but are not |                | STRUCTIONS<br>erator Knowledge Info | Hold Time<br>rmation Form applies. | Tota                    | l Activity l | Exemption: | Yes V No                          |
| Sample No.  | Lab ID           |          | Date    | Time           | No/Type Cont           | ainer      |                 |                | Sample Anal                         | lysis                              |                         |              | Pre        | servative                         |
| 31V845  |                  | W        | 5-27-08 | 1401           | 1x20-mL P              |            | Activity Scan   |                |                                     |                                    | None                    |              |            |                                   |
| 31V845  |                  | W        | 1/      | 1,             | 2x4000-mL 0            | G/P        | 1129LL SEP_LER  | S GS LL: I-1:  | 29 (1)                              |                                    | None                    |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     | KNIHA                              |                         |              |            |                                   |
|   |                  | -        |         |                | -                      |            |                 |                |                                     | NIPIT                              |                         | -            |            |                                   |
|   |                  | $\vdash$ |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                | -                      |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  | -        |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                | -                                   |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  | -        |         |                | -                      | _          |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  | -        |         | -              |                        |            |                 |                |                                     |                                    |                         |              |            |                                   |
|   |                  |          |         |                |                        |            |                 |                | 11                                  |                                    |                         |              |            |                                   |
|   |                  |          | -1      |                |                        | 426        |                 | 111            | 1 //11                              | 1                                  |                         |              |            |                                   |
| clinquished By  | Print            | 0        | Sign    | a M            | AV PETING              | 10         | Received By     | 1.20           | 1/1 79.6                            |                                    | Time0836                |              | Matrix     |                                   |
| R. D. Julian  | Fel              | -2       | 11      | 1              | AY 2 8 200             | 10         | R. A. Shep      | ard /          | 11/100                              | MAY 2 % 2008                       | S                       | = Soil       |            | DS - Drum Se                      |
| R. A. Shepan  | 0 1              | 1/       | 111     | 20             |                        |            | Rockived By     | INC            | TAL                                 | 52808                              | 1375 SI                 | Sedic        | ment<br>i  | DI Drim Li T - Tissne WI - Wine   |
| Relinquished By                                       | 10               |          | 10      | G              | Date Time              |            | Received By     |                | 10)-                                | Date/                              |                         |              | er         | V = Limid V = Vegetatio X = Other |
|   |                  |          |         |                | Date/l'ime             |            | Received By     |                |                                     | Date/                              | Time                    |              |            |                                   |
| Relinquished By                                       |                  |          |         |                | Ditto i itto           |            |                 |                |                                     |                                    |                         |              |            |                                   |



|       | Time Received: 05                                    |                           |                             |   |
|-------|--|---------------------------|-----------------------------|---|
| Clier | nt: PbW  | SDG #: W054               | /19_NA[] SAF                | #: WO8 005 NA[]                               |
| Wor   | k Order Number: J80                                  | 280293                    |                             | 608-605-328                                   |
| Ship  | ping Container ID:                                   |                           | Air Bill #                  |   |
| 1.    | Custody Seals on shipping of                         | container intact?         | NA[] Yes[/]                 | No[]  |
| 2.    | Custody Seals dated and sig                          | ned?                      | NA[] Yes[/]                 | No [ ]  |
| 3.    | Chain of Custody record pro                          | esent?                    | NA[] Yes[/]                 |   |
| 4.    | Cooler Temperature:                                  | NA [ ]                    | 5. Vermiculite/packing mate | erials is NA [ Wet [ ] Dry [ ]                |
| 6.    | Number of samples in shipp                           | ing container:            |                             |   |
| 7.    | Sample holding times excee                           | ded?                      | NA [ ] Yes [ ]              | No [ ]  |
| 8     | Samples have: Tape Custody Seals                     |                           | Hazard Approp               | Lables<br>priate Sample Lables                |
| 9.    | Samples are: In Good Conditi Broken                  | on                        |                             | g<br>Air Bubbles<br>requiring no head space.) |
| 10.   | Sample pH taken? NA[]                                | pH<2[] pH>2[/]            | pH>9[] Amount H             | NO3 Added the                                 |
| 11.   | Sample Location, Sample C *For documentation only. } |                           | d.                          |   |
| 12.   | Were any anomalies identifi                          | ed in sample receipt?     | Yes [ ] ]                   | No [ Y  |
| 13.   | Description of anomalies (in                         | nclude sample numbers): _ |                             |   |
| Sam   | ple Custodian:                                       | RH                        |                             | Date: 57808                                   |
|       | Client Sample ID                                     | Analysis Requested        | Condition                   | Comments/Action                               |
| Clian | 1. Farmed an   | h                         | Pause Conta                 |   |
|       |  |                           | Person Conta                | cted  |
| []]   | No action necessary; process a                       | S 1S.                     |                             |   |
| Proje | ct Manager   |                           | Date                        |   |

| FLUOR HAN   | FORD            |               |                  |                 |                            |                        | SAMPLE ANAL   |                      | 1                       | 108-038-2                |
|---|-----------------|---------------|------------------|-----------------|----------------------------|------------------------|---|----------------------|-------------------------|--------------------------|
|   |                 |               |                  |                 | 18E280                     |                        | 05419 Du  | Le 07 11.08          |                         | Page 1 of 1              |
| ollect R. D. Julian   |                 |               |                  |                 |                            | t/Requester<br>e Trent |   | Telephone ! 509-373- |                         | FAX                      |
| AF No.  |                 |               |                  |                 |                            | ng Origin              |   |                      | rder/Charge Code        |                          |
|   |                 |               |                  |                 | Hanfo                      | ford Site              |   |                      |                         |                          |
| roject Title  |                 |               |                  |                 | 1                          | NF-N-5067              | 12  | Ice Chest N          | Ow!                     | Temp.                    |
| 2ZP1, MAY 2008<br>hinned To (Lab)   |                 |               |                  |                 |                            | d of Shipment          |   |                      | ing/Air Bill No.        |                          |
| TestAmerica Inco  | rnorated Ric    | hland         |                  |                 |                            | Vehicle                |   | Direct Carde         | agren bin rior          |                          |
| retocol   |                 |               |                  |                 |                            | Pri                    | ority: 45 Days  | Offsite Prop         | perty No.               |                          |
| CERCLA  COSSIBLE SAMPI  CONTAINS Radi  Cleasable per DOE Ord              | oactive Materia | i at con      | centrations that | are not regular | ated for transportation pe | er 49 CFR but are not  | SPECIAL INSTRUCTIONS<br>200 Area Generator Knowledge In |                      | Total Activ             | vity Exemption: Yes M No |
| Sample No.  | Lab ID          | •             | Date             | Time            | No/Type Contain            | ner                    | Sample A  | Analysis             |                         | Preservative             |
| B1V6B1  |                 | W             | 5-27-08          | 1210            | 1x20-mL P                  | Activity Scan          |   |                      | None                    |                          |
| B1V6B1  |                 | w             | 1                | J               | 2x4000-mL G/P              | I129LL_SEP_LE          | PS_GS_LL: I-129 (1)                                     |                      | None                    |                          |
|   |                 |               |                  |                 |                            |                        |   | KNIHP                |                         |                          |
|   |                 |               |                  |                 |                            |                        |   |                      |                         |                          |
|   |                 |               |                  |                 |                            |                        |   |                      |                         |                          |
|   |                 |               | 7-1              |                 |                            | 30                     | IMM   |                      | ებ30                    |                          |
| Relinquished By R. D. Julian Relinquished By R. A. Shepan Relinquished By | 11              | To the second |                  | Q               | MAY Date/fime 200          | R. A. Shepar           | TAL   | MAY 28 200  Date /   | Time SE SO - SI W - O - | Matrix                   |
| Relinquished By   |                 |               |                  |                 | Date/Time                  | Received By            |   | Date                 | Time                    |                          |
|   | E Disposal      |               |                  |                 |                            |                        |   |                      |                         |                          |

| FLUOR HAI                                       | NFORD  |           |  |                       | CHAIN OF                     |                   | /SAMPLE ANALYSIS   |  | C.O.C. #  | 108-038-3   |
|---|--|-----------|--|-----------------------|------------------------------|-------------------|--|--|---|---|
|   |  |           |  |                       | J8E280                       | 295 0             | U05419 Due 07  | 1108   | Pa  | age 1 of 1  |
| ollector D. A.                                  | 0  |           |  |                       | Contact/R<br>Steve T         | equester          |  | Telephone No.  | MSIN  | FAX   |
| AF No.  |  |           |  |                       | Sampling                     |                   |  | S09-373-5869<br>Purchase Order   |   |   |
| 108-038   |  |           |  |                       | Hanford                      |                   |  | the second secon |   |   |
| roject Title                                    |  |           |  |                       | 1                            | WF-W-50           | 6-12   | Ice Chest No.  | in Temp   |   |
| 2ZP1_MAY 2008<br>hipped To (Lab)                | 8  |           |  |                       | Mathodo                      | Shipment          |  | Bill of Lading/A   | in Pill No  |   |
| TestAmerica Inco                                | orporated Ric  | hland     |  |                       | Goyt, V                      |                   |  | Bill of Lading/  | AIT BIII NO.  |   |
| rotocol   | THE PROPERTY OF  |           | Hillian Control of the Control of th | HICKORY AND PROPERTY. |                              |                   | nority: 45 Days  | Offsite Propert  | v No.   |   |
| CERCLA<br>OSSIBLE SAMP                          |  |           |  |                       |                              | FI                | The second secon | lold Time  |   | emption: Yes V No   |
|   | lioactive Materia  | al at cor | centrations that   | are not regula        | ted for transportation per 4 | 9 CFR but are not | 200 Area Generator Knowledge Information   | n Form applies.  |   |   |
| Sample No.                                      | Lab ID   | *         | Date   | Time                  | No/Type Container            |                   | Sample Analysis  | 10150  |   | Preservative  |
| B1V6B2  |  | W         | 5-27-08  | 1210                  | 1x20-mL P                    | Activity Scan     |  |  | None  |   |
| B1V6B2  |  | w         | 1  | 1                     | 2x4000-mL G/P                | 1129LL SEP LE     | PS_GS_LL: I-129 (1)  |  | None  |   |
|   |  | 1         | -  |                       |                              |                   |  |  |   |   |
|   | -  | -         |  |                       |                              |                   |  | 1:110  |   |   |
|   |  | -         |  |                       |                              |                   | K  | JIHQ   |   |   |
|   |  |           |  |                       |                              |                   |  | 1  |   |   |
|   |  |           |  |                       |                              |                   |  |  |   |   |
|   |  |           |  |                       |                              |                   |  |  |   |   |
|   |  |           |  |                       |                              |                   |  |  |   |   |
|   |  |           |  |                       |                              |                   |  |  |   |   |
|   |  |           |  |                       |                              |                   |  |  |   |   |
|   |  |           |  |                       |                              |                   | 110/1  | ^  |   |   |
|   |  |           |  |                       |                              |                   |  |  |   |   |
| elinquished By                                  | Print  |           | /Sign 1  | M                     | Y 20871108                   | Received By       | Sign   | Date/Time  |   | Matrix *  |
| R. D. Julia                                     | The state of the s | 7         | Th   | M                     | AY 20 8 2008  Signature 1325 | R. A. Shepa       | ard ///////  | Date Time<br>5 2 8 0 8 /3  | SE = Soil<br>SE = Sedimer<br>SO = Solid<br>SL = Sludge<br>W = Water | DS - Drum So  |
| Relinquished By                                 | The state of the s | 7         | M  | - M/                  | AY 2 75 2008                 | R. A. Shepa       | ard ///////  | MAY 2 8 200<br>Date/Time   | SE = Soil<br>SE = Sedimer<br>SO = Solid<br>SL = Sludge<br>W = Water | DS - Dram Sol<br>of DI Dram Lin<br>T - Tissue<br>WI - Wine                            |
| R. D. Julie<br>Relinquished By<br>R. A. Sheparo | The state of the s | 7.        |  | - M                   | 1 2 78 2008  5 28 08 1325    | R. A. Shep        | ard ///////  | Date Time<br>5 2 8 0 8 /3  | SS Soil SS Schimer SO Solid SI. Sludge W Water O Oil A Air          | DS - Drum So<br>DI Drum Lie<br>T = Tissue<br>WI = Wine<br>I. = Limid<br>V = Vevetatic |



| Date  | Time Received: 05                                    | 28.08 132                 | 5 GM Screen R               | esult,/                                       |
|-------|--|---------------------------|-----------------------------|---|
| Clien | nt: Pow  | SDG #: 1005               | 419 NAL   SAF               | #: 108-038 NA[]                               |
| Wor   | rk Order Number:                                     | E280295                   | Chain of Custody #          | IO8-038-2,3                                   |
| Ship  | ping Container ID:                                   |                           | Air Bill #                  |   |
| 1.    | Custody Seals on shipping                            | container intact?         | NA[] Yes[/]                 | No [ ]  |
| 2.    | Custody Seals dated and sig                          | ned?                      | NA[] Yes[]                  |   |
| 3.    | Chain of Custody record pro                          | esent?                    | NA[] Yes[]]                 |   |
| 4.    | Cooler Temperature:                                  | NA []                     | 5. Vermiculite/packing mate | erials is NA [/] Wet [] Dry []                |
| 6.    | Number of samples in shipp                           | oing container: 2         |                             |   |
| 7.    | Sample holding times excee                           | :ded?                     | NA [/] Yes [ ]              | No[]  |
| 8     | Samples have: Tape Custody Seals                     |                           |                             | Lables<br>priate Sample Lables                |
| 9.    | Samples are:  In Good Condition Broken               | on                        |                             | g<br>Air Bubbles<br>requiring no head space.) |
| 10.   | Sample pH taken? NA[]                                | pH<2[] pH>2[/]            | pH>9[] Amount H             | NO3 Added None                                |
| 11.   | Sample Location, Sample C *For documentation only. 1 |                           | d.                          |   |
| 12.   | Were any anomalies identif                           | ied in sample receipt?    | Yes [ ]                     | No [/j  |
| 13.   | Description of anomalies (in                         | nclude sample numbers): _ |                             |   |
| Sam   | ple Custodian:                                       | P                         |                             | Date: 5 2808                                  |
|       | Client Sample ID                                     | Analysis Requested        | Condition                   | Comments/Action                               |
|       |  |                           |                             |   |
| Clie  | nt informed on                                       | by                        | Person Conta                | octed   |
| []    | No action necessary; process a                       | as is.                    |                             |   |
| Pro   | ect Manager  |                           | Date                        |   |
| 110   |  |                           |                             |   |

| FLUOR HAN                                     | NFORD               |  |                |      |   | CUSTODY/SAMPLE ANALY                                   | SIS REQUEST                                       | C.O.C. #   | 108-037-91                                     |
|---|---------------------|--|----------------|------|---|--|---|--|--|
|   |                     |  |                | J    | 8E 2802                                     | 299 W05419 Du  | e 0711.08   | Pa   | ge <u>l</u> of <u>l</u>                        |
| Collector                                     | Roy Sto             | kle  |                |      | Contact/R                                   | equester   | Telephone No.                                     | MSIN   | FAX  |
| SAF No.                                       |                     |  |                |      | Steve Ti<br>Sampling                        |  | 509-373-5869<br>Purchase Order                    | r/Charge Code  |  |
| 108-037                                       |                     |  |                |      | Hanford                                     |  |   |  |  |
| roject Title                                  |                     |  |                |      |   | INF-N-506-13   | Ice Chest No.                                     | Temp.  |  |
| 2UPI. MAY 2003                                | 8                   |  |                |      |   |  | Bill of Lading/A                                  |  |  |
| TestAmerica Inco                              | ornorated Ric       | hland  |                |      | Govt. V                                     | Shipment   | Bill of Lading/A                                  | AIT DISI NO.   |  |
| rotocol                                       | unanan sa <u>ra</u> | TIME TO SERVICE STATE OF THE PARTY OF THE PA |                |      | 300   | Priority: 45 Days                                      | Offsite Property                                  | v No.  |  |
| SURV<br>POSSIBLE SAMP                         | LE HAZARI           | )S/RE  | MARKS          |      |   | SPECIAL INSTRUCTIONS 200 Area Generator Knowledge Info | Hold Time<br>ormation Form applies.               | Total Activity Exe   | mption: Yes 🗹 No 🔔                             |
| Sample No.                                    | Lab ID              |  | Date           | Time | No/Type Container                           | Sample An  | alysis  |  | Preservative                                   |
| B1V9W2  |                     | w  | 5/27/08        | 0957 | 1x20-mL P                                   | Activity Scan  |   | None   |  |
| B1V9W2  |                     | w  | 1              | 1    | 2x1000-mL G/P                               | C14_LSC: C-14 (1)                                      |   | None   |  |
| B1V9W2  | -                   | w  |                |      | 1x4000-mL G/P                               | GAMMALL_GS: List-1 (9)                                 |   | HNO3 to pH <2  |  |
| B1V9W2  |                     | w  |                | -    | 2x4000-mL G/P                               |  |   | None   |  |
| B1V9W2  | -                   | w  | <del>   </del> | -    | 2x1000-mL G/P                               | Selenium-79  |   | HNO3 to pH <2  |  |
|   |                     | -  | -              | -    |   |  |   | HNO3 to pH <2  |  |
| B1V9W2  |                     | W  | \/ <u></u>     | 1.   | 1x1000-mL G/P                               | UISO_PLATE_AEA: List-1 (3)                             |   |  |  |
| B1V9W2  |                     | W  | V              | V    | 1x1000-mL G/P                               | NP237_LLE_PLATE_AEA:Np-237(1)                          | KNIJT   | HNO3 to pH <2  |  |
|   |                     |  |                |      |   |  | , , , , , , , , , , , , , , , , , , ,             |  |  |
|   |                     |  |                |      |   | 1.0 11   |   |  |  |
| Relinquished By Relinquished By R. A. Shepard | 1 19                | 7  |                | 20   | Date/Time 830<br>5(28/08/<br>Date/Time /325 | R. A. Shepard  | Date/Time  5/28/08  Date/Time  5/28/08  Date/Time | S = Soil SE = Sedimen SO = Solid SI = Shidge W = Water O = Oil | T - Tissue WI - Wine I. = Limid V = Vegetation |
| Relinquished By                               | 0                   |  |                |      |   |  |   | A = Air  | X = Other                                      |

| FLUOR HA                                      | NFORD          |        |                    |              | CHAIN OF                                | CUSTODY/SAMPLE ANAI                              | LYSIS REQUEST                  |  | 108-037-92                            |
|---|----------------|--------|--------------------|--------------|---|--|--------------------------------|--|---------------------------------------|
| Collector DO                                  | y Sickle       |        |                    |              | Contact/Re                              | quester  | Telephone No.                  | MSIN   | FAX                                   |
| SAF No.                                       | y 0.0          |        |                    |              | Steve Tr                                |  | 509-373-5869<br>Purchase Order |  |                                       |
| J08-037                                       |                |        |                    |              | Hanford                                 |  | rurchase Order                 | (Charge Code   |                                       |
| Project Title                                 | 000            |        |                    |              |   | HNF-N-506-13                                     | Ice Chest No.                  | Temp   |                                       |
| Shinned To (Lah)                              |                |        |                    |              | Method of                               |  | Bill of Lading/A               |  |                                       |
| TestAmerica In                                | cornorated Ric | hland  |                    |              | Govt. Ve                                | hicle  |                                |  |                                       |
| Protocol<br>SURV                              |                |        |                    |              |   | Priority: 45 Days                                | Offsite Property               | No.  |                                       |
| POSSIBLE SAM                                  | PI.E HAZARI    | DS/RE  | MARKS              |              |   | SPECIAL INSTRUCTION 200 Area Generator Knowledge |                                | Total Activity Exe   | mption: Yes 🗹 No 🗔                    |
| Sample No.                                    | Lab ID         |        | Date               | Time         | No/Type Container                       | Sample   | Analysis                       |  | Preservative                          |
| B1V9W3  |                | w      | 5/27/08            | 1113         | 1x20-mL P                               | Activity Scan                                    |                                | None   |                                       |
| B1V9W3  |                | w      | 11                 | 111          | 2x1000-mL G/P                           | C14_LSC: C-14 (1)                                |                                | None   |                                       |
| B1V9W3  |                | W      |                    |              | 1x4000-mL G/P                           | GAMMALL_GS: List-1 (9)                           |                                | HNO3 to pH <2  |                                       |
| B1V9W3  |                | W      |                    |              | 2x4000-mL G/P                           | 1129LL_SEP_LEPS_GS_LL:  -129 (1)                 |                                | None   |                                       |
| B1V9W3  |                | W      |                    |              | 2x1000-mL G/P                           | Selenium-79                                      |                                | HNO3 to pH <2  |                                       |
| B1V9W3  |                | W      |                    |              | 1x1000-mL G/P                           | UISO_PLATE_AEA: List-1 (3)                       |                                | HNO3 to pH <2  |                                       |
| B1V9W3  |                | w      | V                  | V            | 1x1000-mL G/P                           | NP237_LLE_PLATE_AEA:Np-237(1)                    | KNIJX                          | HNO3 to pH <2  |                                       |
|   |                |        |                    |              |   |  |                                |  |                                       |
|   |                |        |                    |              |   |  | 1                              |  |                                       |
| Relinquished By R. A. Shepard Relinquished By | 15             |        | h                  | 2            | Date/Time 1325 Date/Time 1325 Date/Time | R A Shanger                                      | Date/Time    Date/Time         | S = Soil SF - Sediment SO = Solid SI = Slustre W = Water O = Oil | T Tissue WI Wine I Limid V Vegetation |
| Relinquished By                               | 0              |        |                    |              | Date/Time                               | Received By                                      | Date/Time                      | A = Air  | X - Other                             |
|   |                |        |                    |              |   |  |                                |  |                                       |
| FINAL SAMPI                                   |                | Method | d (e.g., Return to | customer, pe | r lab procedure, used in proc           | Ess) Disposed B                                  | у                              | D  | ate/Time                              |

| FLUOR HAN   | NFORD                                  |              |              |                     |                  |                |   |                                | ANALYSIS                                 |  |                                   |                          |                                    | 37-38   |
|---|--|--------------|--------------|---------------------|------------------|----------------|---|--------------------------------|--|--|-----------------------------------|--------------------------|------------------------------------|---------|
|   | O'alda                                 |              |              |                     | JBE              |                |   | W05419                         | Due 07                                   |  |                                   |                          | 1 of                               | Ţ       |
| ollector RC   | y Sickle                               |              |              |                     |                  | Steve Tre      |   |                                |  | Telephone No.<br>509-373-5869                    | MSIN                              | FAX                      |                                    |         |
| AF No.  |  |              |              |                     | 5                | Sampling (     |   |                                |  | Purchase Order                                   | Charge Code                       |                          |                                    |         |
| 108-037   |  |              |              |                     |                  | Hanford        |   | (11 13                         |  | In Chest No. 4                                   | . 1 T                             |                          |                                    |         |
| oiect Title<br>2UPL MAY 2001  | 3                                      |              |              |                     |                  | H              | NF-N-   | 506-13                         |  | Ice Chest No.                                    | 1 I-W                             | emb.                     |                                    |         |
| inned To (Lab)  | ************************************** |              |              |                     | ALDERD HOUSE     | Method of      | Shipment  |                                |  | Bill of Lading/A                                 |                                   |                          |                                    |         |
| TestAmerica Inco  | rnorated Rich                          | land,        | 1203 mm mm m | manerithini in anne | a and traditions | Govt. Ve       |   |                                |  | Offsite Property                                 | . NI -                            |                          |                                    |         |
| rotocol<br>SURV   |  |              |              |                     |                  |                | F   | riority: 45 Days               |  | Olishe Property                                  | / 140.                            |                          |                                    |         |
| * ** Contains Radicasable per DOE Ord                               | ioactive Material                      | at concentra |              | are not regulat     | ed for transpor  | rtation per 49 | CFR but are not                                   | SPECIAL INS<br>200 Area Genera | TRUCTIONS I<br>flor Knowledge Informatio | Hold Time<br>n Form applies.                     | Total Activity                    | Exemption                | Yes M                              | No L    |
| Sample No.  | Lab ID                                 | * [          | Date         | Time                | No/Type          |                |   |                                | Sample Analysis                          |  |                                   | Pi                       | eservativ                          | е       |
| B1V680  |  | W 5/2        | 27/08        | 1318                | 1x20-mL          | Р              | Activity Scan                                     |                                |  |  | None                              |                          |                                    |         |
| B1V680  |  | W 5/2        | 7/08         | 13/8                | 2x4000-m         | nL G/P         | I129LL_SEP_L                                      | EPS_GS_LL: I-12                | 9 (1)                                    |  | None                              |                          |                                    |         |
|   |  |              |              |                     |                  |                |   |                                |  |  |                                   |                          |                                    |         |
| Relinquished By ROY S Relinquished By R. A. Shepard Relinquished By | Sickle                                 |              |              | no                  | 5/28/<br>Date/I  | 808            | Received By  R. A. Shepi Received By  Received By | Print /                        | Mn<br>TAC                                | Date/Time/ 5/28/08 Date/Time 578 08 /3 Date/Time | S = Soil<br>SE = Sed<br>SO = Soli | iment<br>d<br>loe<br>ter | DS<br>DI<br>T<br>WI ==<br>I<br>V = | hiuni.1 |
|   | U                                      |              |              |                     |                  |                |   |                                |  |  |                                   |                          |                                    |         |
| Relinquished By   | 0                                      |              |              |                     | Date/T           | ime            | Received By                                       |                                |  | Date/Time  |                                   |                          |                                    |         |

| Collector Roy  | NFORD            |         |         |                 |                | N OF                      |                 | SAMPLI           | E ANALY                             | SIS REQUES   | Т                 | C.O.C.   |  | 9-037                             |                                  |
|--|------------------|---------|---------|-----------------|----------------|---------------------------|-----------------|------------------|-------------------------------------|--|-------------------|--|--|-----------------------------------|----------------------------------|
| Collector Box  | sickle           |         |         | 10              | C 200          | Contact/Re                |                 | 771              | rocce o .                           | Telephone No.  | M                 | SIN  | FAX  | 0. 1                              | -                                |
| Hoy  | Sionis           |         |         |                 |                | Steve Tr                  | ent             |                  |                                     | 509-373-586  | 9                 |  |  |                                   |                                  |
| AF No.   |                  |         |         |                 |                | Sampling (                |                 |                  |                                     | Purchase Orde  | er/Charge Code    |  |  |                                   |                                  |
| 108-037<br>Project Title<br>2UPL MAY 200   |                  |         |         |                 |                |                           | INF-N-S         | 506-13           |                                     | Ice Chest No. (  | -NN-1             | Tem  | D.   |                                   |                                  |
| hinned To (Lah)  | 3                |         |         |                 |                | Method of                 | Shinmant        | OCE /)           |                                     | Bill of Lading/  |                   |  |  |                                   |                                  |
| TestAmerica Inco   | rnorated Ric     | bland   |         |                 |                | Goyt. Ve                  |                 |                  |                                     | Bui of Lading  | An bin No.        |  |  |                                   |                                  |
| rotocol<br>SURV  |                  |         |         |                 |                |                           | Pi              | riority: 45 Days |                                     | Offsite Proper   | tv No.            |  |  |                                   |                                  |
| ** Contains Rad<br>eleasable per DOE On  | ioactive Materia | at cond |         | are not regular | ted for transp | ortation per 49           | CFR but are not |                  | STRUCTIONS<br>rator Knowledge Infor | Hold Time<br>mation Form applies.                            | Total             | Activity Ex  | emption: Y   | es 🗸                              | No L                             |
| Sample No.   | Lab ID           |         | Date    | Time            | No/Type        | Container                 |                 |                  | Sample Ana                          | lysis  |                   |  | Preser   | vative                            |                                  |
| B1V679   |                  | w       | 5/27/08 | 1318            | 1x20-ml        | Р                         | Activity Scan   |                  |                                     |  | None              |  |  |                                   |                                  |
| B1V679   |                  | W       | *       | 1318            | 2x4000-        | mL G/P                    | I129LL_SEP_LE   | EPS_GS_LL: I-1:  | 29 (1)                              |  | None              |  |  |                                   |                                  |
|  |                  |         |         |                 |                |                           |                 |                  |                                     |  |                   |  |  |                                   |                                  |
| Relinqui <b>TON Si</b> Relinquished By R. A. Shepard Relinquished By Relinquished By | XIII             |         |         | ho              | 5/28/          | Time /325<br>4/08<br>Time | Received By     | ard Sold         | TAL                                 | Date/Time  5/28/08  Date/Time  5/28/08  Date/Time  Date/Time | S SE SO SI. W O A | = Soil<br>= Sedime<br>= Solid<br>= Sludge<br>= Water<br>= Oil<br>= Air | Matrix *  Director Di | - Di<br>  - Ti<br>  - W<br>  - Li | ine<br>ine<br>inuid<br>eretation |

| ollector Sco<br>AF No.<br>108-037<br>roject Title                 | NFORD            |          |                  |                  |  |             | CUSTODY           | 1SAMPLE AN<br>5419 Du                     | NALYSIS  | REQUEST  |                                     | 108-037-45               |
|---|------------------|----------|------------------|------------------|--|-------------|-------------------|---|--|--|-------------------------------------|--------------------------|
| 5/2   | 1/03 /iN         |          | Roy Sic          | VIO.             | 8E286  |             |                   | 5419 Du                                   | 20/11:00   |  | 1                                   | Page 1 of 1              |
| Sco   | E. Hamake        | -        | HOY SIC          | KIE              |  | ntact/Re    |                   |   |  | Telephone No.<br>509-373-5869                      | MSIN                                | FAX                      |
| F No.   |                  |          |                  |                  |  | mpling (    |                   |   |  | Purchase Order                                     | Charge Code                         |                          |
| 0108-037<br>oiect Title   |                  |          |                  |                  |  | Hanford     |                   | - 13                                      |  | Ice Chest No.                                      |                                     | Temp.                    |
| 2UP1, MAY 200   | 3                |          |                  |                  |  |             | F-11-50           | 5-17                                      |  | (-   | 211                                 |                          |
| Inned To (Lah) TestAmerica Inco                                   | rporated Ric     | hland    |                  |                  |  | Govt. Ve    | Shipment<br>hicle |   |  | Bill of Lading/A                                   | ir Bill No.                         |                          |
| otocol  |                  |          |                  |                  |  |             |                   | fority: 45 Days                           |  | Offsite Property                                   | No.                                 |                          |
| SURY<br>DSSIBLE SAMP  * Contains Rad<br>easable per DOE Ord       | ioactive Materia | l at con | centrations that | are not regulate | ed for transportat                                 | tion per 49 |                   | SPECIAL INSTRUC<br>200 Area Generator Kno |  | d Time<br>orm applies.                             | Total Activi                        | ty Exemption: Yes 🗹 No 🗀 |
| Sample No.  | Lab ID           | ٠        | Date             | Time             | No/Type Co   |             |                   |   | Sample Analysis  |  |                                     | Preservative             |
| 31V687  |                  |          | 5/27/08          | 1440             | 1x20-mL P  |             | Activity Scan     |   |  |  | None                                |                          |
| 31V687  |                  | W        | 5/27/08          | 1440             | 2x4000-mL  | G/P         | I129LL_SEP_LE     | PS_GS_LL:  -129 (1)                       |  |  | None                                |                          |
|   |                  |          |                  |                  |  |             |                   |   |  | /KX  |                                     |                          |
| Roy Selinquished By R. A. Shepard Relinquished By Relinquished By | 18 23/           |          |                  | ab               | Date/Tim 5/24/05 Date/Tim 5/28/0 Date/Tim Date/Tim | 8<br>8<br>8 | R. A. Sheps       | 10  | Sign / Si | Date/Time of S/28/08 Date/Time Date/Time Date/Time | S = S<br>SE = S<br>SO = S<br>SI = S | DI                       |



| Date  | Time Received:                                   | 5.28.08 130                                      | GM Screen F              | Result   |
|-------|--|--|--------------------------|--|
| Clien | t: Pow   | SDG #: W054                                      | 19 NAL SAF               | #: IO8-037 NA[]                                  |
| Wor   | k Order Number: 🗾                                | 8E280299   |                          | IO8-037-91,38,37,45,92                           |
| Ship  | ping Container ID:                               |  | Air Bill #               |  |
| 1.    | Custody Seals on shipping                        | container intact?                                | NA[] Yes[]               | No[]   |
| 2.    | Custody Seals dated and si                       | gned?  | NA[] Yes                 | No [ ]   |
| 3.    | Chain of Custody record p                        | resent?  | NA[] Yes                 | No [ ]   |
| 4.    | Cooler Temperature:                              | NA [/] 5.  | Vermiculite/packing made | terials is NA [ ] Wet [ ] Dry [ ]                |
| 6.    | Number of samples in ship                        | pping container:5_                               |                          |  |
| 7.    | Sample holding times exce                        | eeded?   | NA [ ] Yes [ ]           | No [ ]   |
| 8     | Samples have: Tape Custody Seals                 |  |                          | d Lables<br>priate Sample Lables                 |
| 9.    | Samples are: In Good Condi Broken                | tion   |                          | ng<br>Air Bubbles<br>s requiring no head space.) |
| 10.   | Sample pH taken? NA [                            | ] pH<2 // pH>2 //                                | pH>9[] Amount F          | INO, Added None                                  |
| i 1.  | Sample Location, Sample *For documentation only. | Collector Listed? * No corrective action needed. |                          |  |
| 12.   | Were any anomalies identi                        | fied in sample receipt?                          | Yes [ ]                  | No [X]   |
| 13.   | Description of anomalies (                       | include sample numbers):                         |                          |  |
| Sam   | ple Custodian:                                   | 098  |                          | Date: 52808                                      |
|       | Client Sample ID                                 | Analysis Requested                               | Condition                | Comments/Action                                  |
|       |  |  |                          |  |
| Clien | at Informed on                                   | by   | Person Cont              | acted  |
| 1)1   | No action necessary; process                     | as is.   |                          |  |
|       |  |  | The tr                   |  |
| Pioje | ct Manager                                       |  | Date                     |  |

| FLUOR HAI  | NFORD            |           |   |                  | CHAII          | N OF C                  | CUSTODY  | //SAMPLE ANALY                                       |          |                                       | C.O.           | 108-036-4                 |
|--|------------------|-----------|---|------------------|----------------|-------------------------|--|--|----------|---------------------------------------|----------------|---------------------------|
|  |                  |           | ل                                       | 8E29             | 250            | 9 4                     | 105419   | DUE 71408  |          |                                       |                | Page <u>1</u> of <u>1</u> |
| ollector R   | by Sickle        | 9         |   |                  |                | Contact/Re<br>Steve Tre |  |  | 1        | Telephone No.<br>509-373-5869         | MSIN           | FAX                       |
| F No.  |                  |           |   |                  |                | Sampling C              |  |  | F        | urchase Order                         |                |                           |
| 108-036  |                  |           |   |                  | -              | Hanford                 |  | / 12   |          | ce Chest No.                          | Ta             | ID.                       |
| piect Title<br>100KR4IAM(1/2   | MAY 2008         |           |   |                  |                | HNI                     | E-N-50   | 6-13   |          | ce Chest No.                          | -W-1           | dp,                       |
| inned To (Lab)   |                  |           |   |                  |                | Method of               |  |  | E        | Bill of Lading/A                      | ir Bill No.    |                           |
| TestAmerica Inco<br>otocol<br>CERCLA   | rnotated Ric     | bland     | *************************************** |                  |                | Govt. Ve                |  | riority: 45 Days                                     | (        | Offsite Property                      | No.            |                           |
| ** Contains Rad<br>easable per DOE Ord   | ioactive Materia | at concer |   | are not regulate | ed for transpo | ortation per 49         | CFR but are not  | SPECIAL INSTRUCTIONS 100 Area Generator Knowledge In |          |                                       | Total Activity | Exemption: Yes 🗹 No       |
| Sample No.   | Lab ID           |           | Date                                    | Time             | No/Type        | Container               |  | Sample A   | Analysis |                                       |                | Preservative              |
| 31V608   |                  | W 5       | 129/08                                  | 1314             | 1x500-m        | L aG                    | 7196_CR6: He   | xavalent Chromium (1)                                |          |                                       | Cool~4C        |                           |
| 31V608   |                  | WS        |   | 1314             | 1x20-mL        | P                       | Activity Scan  |  |          |                                       | None           |                           |
|  |                  | 廿         |   |                  |                |                         |  |  |          |                                       |                |                           |
| TO THE STATE OF TH |                  |           |   |                  |                |                         |  |  |          |                                       |                |                           |
|  |                  |           |   |                  |                |                         |  |  |          |                                       |                |                           |
|  |                  |           |   |                  |                |                         |  |  | -        |                                       |                |                           |
|  |                  |           |   |                  |                |                         |  |  |          |                                       |                |                           |
|  |                  |           |   |                  |                |                         |  |  |          |                                       |                |                           |
|  |                  |           |   |                  | 2              |                         |  |  |          |                                       |                |                           |
| Paul   | takla            |           | //                                      |                  |                |                         |  |  |          | D77'                                  |                |                           |
| Relinquished By  Con Han  Relinquished By  | ///              | 4         | Haw.                                    | 5/2<br>M 51      | Date/          | 1410<br>Time<br>11440   | Received By  | MAKER / SOUTH HA                                     | ruah     | Date/Time 5/29/68 Date/Time 7/29/08 1 | S              | T = Tissue W1 = Wine      |
| ixemiquished by  | 1                |           |   |                  | Date           | iane                    | The state of the s |  |          |                                       | A - Air        | X - Other                 |
| Relinquished By  |                  |           |   |                  | Date/          |                         | Received By  |  |          | Date/Time                             |                |                           |



| Date  | Time Received: 52                                  | 908 14                 | 40         | GM Screen Resu       | ult 0,11                   |
|-------|--|------------------------|------------|----------------------|----------------------------|
| Clien | nt: Phw  | SDG #: _ W             | 5419       | _NA[] SAF#:_         | IOS-036 NA[]               |
| Wor   | k Order Number: <u>J8</u>                          | = 290299               | _ Chain    | of Custody #         | T08-036-4                  |
| Ship  | ping Container ID:                                 |                        | _ Air Bil  | 1#                   |                            |
| ١.    | Custody Seals on shipping                          | container intact?      | N.         | A[] Yes No           | []                         |
| 2.    | Custody Seals dated and sig                        | gned?                  | N.         | A[] Yes No           | []                         |
| 3.    | Chain of Custody record pr                         | esent?                 | N.         | A[] Yes   No         | [ ]                        |
| 4.    | Cooler Temperature:                                | NA [/]                 | 5. Vermicu | lite/packing materia | ls is NA [ Wet [ ] Dry [ ] |
| 6.    | Number of samples in shipp                         | oing container:        | _          |                      |                            |
| 7.    | Sample holding times exceed                        | eded?                  | N          | A [Yes [] No         | []                         |
| 8     | Samples have: Tape Custody Seals                   |                        | _          | Hazard La Appropria  | bles<br>te Sample Lables   |
| 9.    | Samples are: In Good Conditi Broken                | on                     | =          | Leaking Have Air l   |                            |
| 10.   | Sample pH taken? NA [ ]                            | pH<2[] pH>2/           | pH>9[      | Amount HNC           | 3 Added                    |
| . 11. | Sample Location, Sample C *For documentation only. |                        | ded.       |                      |                            |
| 12.   | Were any anomalies identif                         | ied in sample receipt? |            | Yes [ ] No           | W                          |
| 13.   | Description of anomalies (i                        | nclude sample numbers) | :          |                      |                            |
| Sam   | ple Custodian:                                     | RIF                    | 2          | D:                   | nte: 5 2908                |
|       | Client Sample ID                                   | Analysis Requeste      | d          | Condition            | Comments/Action            |
|       | nt Informed on                                     |                        |            | Person Contacted     | d                          |
| []]   | No action necessary; process a                     | 35 15.                 |            |                      |                            |
| Proje | ect Manager  |                        |            | Date                 |                            |

| FLUOR HA   | NFORD             |  |                    |                       | CHAI                   | N OF            | CUSTOD                              | Y/SAM       | (PL     | E AN                                      | ALY                   | SIS R               | EQUEST                                  | Γ       | C.O         | ).C.#<br><b>I</b> (                 | 08-03                           | 5-1                               | 41                    |
|--|-------------------|--|--------------------|-----------------------|------------------------|-----------------|-------------------------------------|-------------|---------|---|-----------------------|---------------------|---|---------|-------------|-------------------------------------|---------------------------------|-----------------------------------|-----------------------|
|  |                   | _  | 18                 |                       |                        |                 | 5419                                |             |         |   |                       |                     |   |         |             | Page                                | 1 of                            | 1                                 |                       |
| Collector  | R.D. Amo          |  |                    |                       |                        | Contact/Re      | equester                            | 0           |         |   |                       |                     | Telephone No.<br>509-373-5869           |         | MSIN        | FA                                  | K                               |                                   |                       |
| AF No.   |                   |  |                    | _                     | 1                      | Sampling (      |                                     |             | -       |   |                       |                     | Purchase Orde                           |         | ode         |                                     |                                 |                                   |                       |
| 108-035  |                   |  |                    |                       |                        | Hanford         |                                     |             |         |   |                       |                     | - Ct - N                                |         |             |                                     |                                 |                                   |                       |
| roject Title<br>100HR3IAM(1/2  | MAY 2008          |  |                    |                       |                        |                 | HNF-N                               | - 506-      | 12      |   |                       | 1                   | ce Chest No.                            |         |             | l'emp.                              |                                 |                                   |                       |
| hinned To (Lab)  |                   |  |                    |                       |                        | Method of       | Shipment                            |             |         |   |                       |                     | Bill of Lading/Air Bill No.             |         |             |                                     |                                 |                                   |                       |
| TestAmerica Inc  | ornorated Ric     | hland  |                    | and resident the same | William Street William | Govt. Ve        |                                     |             |         |   |                       |                     | Offsite Property No.                    |         |             |                                     |                                 |                                   |                       |
| Protocol<br>CERCLA   |                   |  |                    | _                     |                        |                 |                                     | Priority: 4 | 5 Days  | •   |                       | ľ                   |   |         |             |                                     |                                 |                                   |                       |
| POSSIBLE SAME ** ** Contains Ra eleasable per DOE O                  | dioactive Materia | al at cor  | centrations that   | are not regula        | ted for transpo        | ortation per 49 | OFR but are not                     |             |         | STRUC<br>erator Kno                       | TIONS<br>owledge Info | Hold<br>rmation For |   | То      | al Activity | v Exemptio                          | 1: Yes                          | N                                 | о Ц                   |
| Sample No.   | Lab ID            |  | Date               | Time                  | No/Type                | Container       |                                     |             |         | S   | ample Ana             | alysis              |   |         |             | F                                   | reservati                       | ive                               |                       |
| B1V5L1   |                   | W  | 06:02.08           | 0919                  | 1x500-m                | L aG            | 7196_CR6: H                         | exavalent C | Chromiu | ım (1)                                    |                       |                     |   | Cool~4C |             |                                     |                                 |                                   |                       |
| B1V5L1   |                   | W  | L                  | L                     | 1x20-mL                | Р               | Activity Scan                       |             |         |   |                       |                     |   | None    |             |                                     |                                 |                                   |                       |
|  |                   |  |                    |                       |                        |                 |                                     |             |         |   |                       |                     |   |         |             |                                     |                                 |                                   |                       |
| Relinquished By  D. J. S  Relinquished By  K.A. Hau  Relinquished By |                   | The state of the s | Joseph Len         | N.                    | 1 11 / 6               | Time / 250      | Received By Received By Received By | 19          |         | 10 No | Sign Sign             | 6-                  | Date/Time Date/Time Date/Time Date/Time | 250     |             | diment<br>slid<br>udge<br>ater<br>I | DS<br>DI.<br>T<br>WI<br>I.<br>V | = Dm<br>= Tiss<br>= Wir<br>= 1.im | ne<br>nid<br>vetation |
| FINAL SAMPL  |                   | Method   | l (e.g., Return to | customer, per         | lab procedure          | e, used in proc | cess)                               |             |         | Disp                                      | osed By               |                     |   |         |             | Date/Tim                            | e                               |                                   |                       |



| Date  | Time Received: 6                                  | 208 1250                                       | GM Screen R                | tesult O, 1 K                                 |
|-------|---|--|----------------------------|---|
| Clier | at: PGW   | SDG #: WO                                      | SY19 NALL SAF              | #: IO8-035 NA[]                               |
| Wor   | k Order Number: <u>181</u>                        | P71050=  | Chain of Custody #         | IO8-035-141                                   |
| Ship  | ping Container ID:                                |  | Air Bill #                 |   |
| 1.    | Custody Seals on shipping                         | container intact?                              | NA[] Yes                   | No [ ]  |
| 2.    | Custody Seals dated and si                        | gned?  | NA[] Yes                   | No[]  |
| 3.    | Chain of Custody record pr                        | resent?  | NA[] Yes                   | No[]  |
| 4.    | Cooler Temperature:                               | NA [/  | 5. Vermiculite/packing mat | erials is NA [ Wet [ ] Dry [ ]                |
| 6.    | Number of samples in ship                         | ping container:                                |                            |   |
| 7.    | Sample holding times exce                         | eded?  | NA [ Yes [ ]               | No [ ]  |
| 8     | Samples have: Tape Custody Seals                  |  |                            | l Lables<br>priate Sample Lables              |
| 9.    | Samples are: In Good Condit Broken                | ion  |                            | g<br>Air Bubbles<br>requiring no head space.) |
| 10.   | Sample pH taken? NA [ ]                           | pH<2[] pH>2/                                   | pH>9[] Amount H            | NO <sub>3</sub> Added                         |
| . 11. | Sample Location, Sample (*For documentation only. | Collector Listed? * No corrective action needs | đ.                         |   |
| 2.    | Were any anomalies identi                         | fied in sample receipt?                        | Yes[]                      | No []   |
| 13.   | Description of anomalies (                        | nclude sample numbers): _                      |                            |   |
| Sam   | ple Custodian:                                    | De   |                            | Date: 6208                                    |
|       | Client Sample ID                                  | Analysis Requested                             | Condition                  | Comments/Action                               |
|       |   |  |                            |   |
| Clien | at Informed on                                    | by   | Person Conta               | acted   |
|       | No action necessary; process                      |  |                            |   |
|       |   |  |                            |   |
| Proje | ect Manager                                       |  | Date                       |   |

| 1   |                  |           |                  |                  |                      | OF CU          | STODY        | //SAMPLI          | EANAL                            | YSIS F   | REQUEST                       | r          | C.O.C,   |           | 8-039               | 9-104  |
|---|------------------|-----------|------------------|------------------|----------------------|----------------|--------------|-------------------|----------------------------------|----------|-------------------------------|------------|--|-----------|---------------------|--|
|   |                  |           | -18              | F030             | 292                  | wo             | 5419         | bue -             | 11808                            | KPA      | 764                           |            |  | age       | 1 of                | 1  |
| Collector R.D   | . Julian         |           |                  |                  | Cont                 | ntact/Reques   |              |                   |                                  |          | Telephone No.<br>509-373-5869 |            | MSIN   | FAX       |                     |  |
| SAF No.   |                  |           |                  |                  | Sam                  | npling Origi   | in           |                   |                                  |          | Purchase Order                |            | Code   |           |                     |  |
| 108-039<br>Project Title                              |                  |           |                  |                  |                      | lanford Site   | - 11-        | 04                |                                  |          | Ice Chest No.                 |            | Tem  | D.        |                     |  |
| ISRM, MAY 200   | 8                |           |                  |                  | Mat                  | thod of Ship   | -N-50        | 06-12             |                                  |          | Bill of Lading/A              | in Dill No |  |           |                     |  |
| TestAmerica Inc.                                      | ornorated Ric    | bland     |                  |                  | and the second       | Govt. Vehicle  |              |                   |                                  |          |                               |            | ).   |           |                     |  |
| Protocol<br>CERCLA                                    |                  |           |                  |                  |                      |                | P            | Priority: 45 Days |                                  |          | Offsite Property              | No.        |  |           |                     |  |
| POSSIBLE SAMP "" "" Contains Rac eleasable per DOE Or | hoactive Materia | al at con | centrations that | are not regulate | ed for transportatio | ion per 49 CFR | but are not  |                   | STRUCTIONS<br>rator Knowledge In |          | Time<br>m applies.            | Т          | otal Activity Ex   | emption   | : Yes ✓             | No L   |
| Sample No.  | Lab ID           | *         | Date             | Time             | No/Type Cont         | ntainer        |              |                   | Sample A                         | Analysis |                               |            | -  | Pro       | eservativ           | e  |
| B1V6Y4  |                  | W         | 6-3-01           | 0840             | 1x500-mL a           |                | 196_CR6: He  | xavalent Chromiu  | m (1)                            |          |                               | Cool~40    | C  |           |                     |  |
| B1V6Y4  |                  | W         | 1                | 1                | 1x20-mL P            | Ac             | ctivity Scan |                   |                                  |          |                               | None       |  |           |                     |  |
|   |                  |           |                  |                  |                      |                |              |                   |                                  |          |                               |            |  |           |                     |  |
|   |                  |           |                  |                  |                      | l Pro-         | A.A.         | Print             | 8:-                              |          | Date/Time                     |            |  | Matri     |                     |  |
| Relinquished By R. D. Julian Relinquished By          | FO               | 1         | Sign             | JUN 0            | 3 2008 Time          |                | gived By     | Print<br>LJ LANE  | TAL                              | JUN 0    | 3 2008 /                      | 425        | S = Soil<br>SE = Sedime<br>SO = Solid<br>SI. = Shidee<br>W = Water | ent       | DS = DI. = T = WI = | Drum Solid<br>Drum Liani<br>Tissue<br>Wine<br>Lianid |
| Relinquished By                                       |                  |           |                  |                  | Date/Time            | Rec            | ceived By    |                   |                                  |          | Date/Time                     |            | O - Oil<br>A - Air   |           | V -                 | Vegetation<br>Other                                  |
| Relinquished By                                       |                  |           |                  |                  | Date/Time            | e Rec          | ceived By    |                   |                                  |          | Date/Time                     |            |  |           |                     | -  |
| FINAL SAMPL   |                  | Method    | (e.g., Return to | o customer, per  | r lah procedure, use | ed in process) |              |                   | Disposed By                      |          |                               |            | 1  | Date/Time |                     |  |



| Date  | Time Received: 63                                    | 08 1425                  |            | GM Screen R      | esult O. 1K                                   |
|-------|--|--------------------------|------------|------------------|---|
| Clien | t: Paw   | SDG#: WOS                | 419        | NA[] SAF         | #: IO8-035 NA[]()                             |
| Wor   | k Order Number: <u>18</u> F                          | 030292                   | Chain      | of Custody#_     | IO8-035-104, HS                               |
| Ship  | ping Container ID:                                   |                          | Air Bil    | 1#               |   |
| 1,    | Custody Seals on shipping of                         | ontainer intact?         | NA         | A[] Yes []       | No [ ]  |
| 2.    | Custody Seals dated and sig                          | ned?                     | NA         | A[] Yes[]        | No [ ]  |
| 3.    | Chain of Custody record pre                          | esent?                   | N          | A[] Yes          | No[]  |
| 4.    | Cooler Temperature:                                  | NA[] S                   | . Vermicul | ite/packing mate | erials is NA [ Wet [ ] Dry [ ]                |
| 6.    | Number of samples in shipp                           | ing container: - Z       | <u></u>    |                  |   |
| 7.    | Sample holding times excee                           | ded?                     | N          | Yes[]            | No [ ]  |
| 8     | Samples have: Tape Custody Seals                     |                          |            | Hazard<br>Approp | Lables<br>oriate Sample Lables                |
| 9.    | Samples are: In Good Condition Broken                | on                       | (0         |                  | g<br>Lir Bubbles<br>requiring no head space.) |
| 10.   | Sample pH taken? NA[]                                | pH<2[] pH>2[]            | pH>9[]     | Amount H         | NO <sub>3</sub> Added                         |
| . 11. | Sample Location, Sample C *For documentation only. N |                          | l.         |                  |   |
| :2.   | Were any anomalies identifi                          | ed in sample receipt?    |            | Yes [ ]          | No []   |
| 13.   | Description of anomalies (in                         | clude sample numbers): _ |            |                  |   |
| Sara  | ple Custodian:                                       | LIF                      |            |                  | Date: 6308                                    |
|       | Client Sample ID                                     | Analysis Requested       |            | Condition        | Comments/Action                               |
|       |  |                          |            |                  |   |
| Clien | t Informed on  | by                       |            | Person Conta     | cted  |
| []    | No action necessary; process a                       | s is.                    |            |                  |   |
| Prois | ct Manager   |                          |            | Date             |   |
| Proje | ct Manager   |                          |            | Date             |   |

| FLUOR HAI  | FORD          |              |             |      |               | OF CUSTODY/SAM  |  |                                    | EST                           | C.O.C.#       | 108-038                 | 3-30   |  |
|--|---------------|--------------|-------------|------|---------------|-----------------|--|------------------------------------|-------------------------------|---------------|-------------------------|--|--|
|  |               |              | 18          | FOYU | 162           | W05419 DI       | 1E71808  | KPAGO                              |                               | Pa            | ge <u>I</u> of <u>I</u> | 1  |  |
| ollector   | R. Williams   | on           |             |      | Cont          | tact/Requester  |  | Telephone<br>509-373-              |                               | ISIN          | FAX                     |  |  |
| F No.  |               |              |             |      |               | pling Origin    |  |                                    | Order/Charge Cod              | e             |                         |  |  |
| 108-038<br>oiect Title   |               |              |             |      |               | anford Site     |  |                                    | _                             | -             |                         |  |  |
| oiect Title  |               |              |             |      | 1 21          | NF-N-506-16     |  | Ice Chest N                        | 10. ERC-1                     | Temp.         |                         |  |  |
| inned To (Lah)   |               |              |             |      |               | nod of Shipment |  |                                    |                               |               |                         |  |  |
| TestAmerica Inco   | rnorated Ricl | land         |             |      |               | ovt. Vehicle    |  | Bill of Lau                        | Bill of Lading/Air Bill No.   |               |                         |  |  |
| otocol<br>CERCLA   |               |              |             |      |               | Priority: 4     | 5 Days   | Offsite Pro                        | perty No.                     |               |                         |  |  |
| OSSIBLE SAMP   | LE HAZARD     | S/REMA       | ARKS        |      |               |                 | IAL INSTRUCTIONS rea Generator Knowledge Infor | Hold Time<br>emation Form applies. | Total                         | Activity Exer | nption: Yes             | No I   |  |
| Sample No.   | Lab ID        |              | Date        | Time | No/Type Conta | tainer          | Sample Ana                                     | alysis                             |                               |               | Prescryative            |  |  |
| 31V6F5   |               | WW           | 102/08      | 0949 | 1x20-mL P     | Activity Scan   |  |                                    | None                          |               |                         |  |  |
| 31V6F5   |               | W            | 02/08       | V    | 2x4000-mL G   |                 | SEP_LEPS_GS_LL: I-129 (1) None                 |                                    |                               |               |                         |  |  |
|  |               |              |             |      |               |                 |  |                                    |                               |               |                         |  |  |
| D. R. William  celinquished By  telinquished By  celinquished By | son Print     | All Services | Mign<br>Whe | 6-3  | Date/Time     | Reconversy )    |  | Date:                              | Time SF SO SI SI W O A A Time |               |                         | Drum Li<br>l'issue<br>Vine<br>.iouid<br>Josetati |  |
|  |               |              |             |      | pare mile     | ,               |  |                                    |                               |               |                         |  |  |
|  |               |              |             |      |               |                 |  |                                    |                               |               |                         |  |  |

| FLUOR HA   | NFORD            |               |      | (                                       | CHAIN OF                                   | CUSTODY                | C.O.C.   | 108-038-31                              |   |                   |
|--|------------------|---------------|------|---|--|------------------------|--|---|---|-------------------|
|  |                  |               | 18   | FOYO                                    | 2016                                       | W05419                 | DUF 71808  | KPA64                                   | 1   | Page 1 of 1       |
| ollector D. F  | . Williamson     |               |      |   | Contact                                    | Requester              |  | Telephone No.<br>509-373-5869           | MSIN  | FAX               |
| VF No.   |                  |               |      |   |  | g Origin               |  | Purchase Order                          | Charge Code   |                   |
| oiect Title  |                  |               |      |   |  | ord Site               | . 11   | Ice Chest No.                           | End   Tem   | D.                |
| 2ZP1, MAY 200  | 3                |               |      |   |  |                        | =- N-506 - 16  |   | ERC-  |                   |
| inned To (Lah) Test America Inc                                  | ornorated Ric    | hland         |      |   |  | of Shipment<br>Vehicle |  | Bill of Lading/A                        | ir Bill No.   |                   |
| rotocol<br>CERCLA  |                  |               |      | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |  | F                      | Priority: 45 Days  | Offsite Property                        | No.   |                   |
| OSSIBLE SAMP   | ioactive Materia | l at concentr |      | are not regulate                        | ed for transportation pe                   | r 49 CFR but are not   | SPECIAL INSTRUCTIONS 200 Area Generator Knowledge Inform | Hold Time<br>ation Form applies         | Total Activity Ex   | emption: Yes 🗹 No |
| Sample No.   | Lab ID           |               | Date | Time                                    | No/Type Contain                            | er                     | Sample Analy   | rsis                                    |   | Preservative      |
| B1V6F6   |                  | W 6-          | 2-08 | 0800                                    | 1x20-mL P                                  | Activity Scan          |  | 377                                     | None  | <u> </u>          |
| B1V6F6   |                  | W             | 1    | 1                                       | 2x4000-mL G/P                              | I129LL_SEP_L           | EPS_GS_LL: I-129 (1)                                     |   | None  |                   |
|  |                  |               |      |   |  |                        |  |   |   |                   |
|  |                  |               |      |   |  |                        |  |   |   |                   |
| Relinquished By  D. R. William  Relinquished By  Relinquished By | san Print        | Jul           | Sign |   | Date/Time  Date/Time  Date/Time  Date/Time | Received By            | tulse XXIII  | Date/Time Date/Time Date/Time Date/Time | S - Sail SE = Sedim SO = Solid SI = Shube W = Water O = Oil A = Air | T = Tissue        |
| reality by   |                  |               |      |   | Danier / Hillio                            |                        |  |   |   |                   |
|  | E Disposal       |               |      |   | lab procedure, used in                     |                        |  |   |   |                   |



| Date  | Time Received: 63  | D8 135D                   | GM Screen                | Result O. 1K                                     |
|-------|--|---------------------------|--------------------------|--|
| Clier | nt: PGW  | SDG#:_ <u></u> <u> </u>   | 419 NA[] SAF             | #: <u>IO8-038</u> NA[]                           |
| Wor   | k Order Number: 18                                       |                           |                          | IO8-038-30,-31                                   |
| Ship  | pping Container ID:                                      |                           | Air Bill #               |  |
| 1.    | Custody Seals on shipping of                             | ontainer intact?          | NA[] Yes                 | No [ ]   |
| 2.    | Custody Seals dated and sig                              | ned?                      | NA[] Yes                 | No[]   |
| 3.    | Chain of Custody record pre                              | sent?                     | NA[] Yes                 | No[]   |
| 4.    | Cooler Temperature:                                      | NAIT 5                    | . Vermiculite/packing ma | aterials is NA [] Wet [] Dry []                  |
| 6.    | Number of samples in shipp                               | ing container: Z          |                          |  |
| 7.    | Sample holding times excee                               | ded?                      | NA [ Yes [ ]             | No [ ]   |
| 8     | Samples have: Tape Custody Seals                         |                           | Hazar Appro              | rd Lables<br>opriate Sample Lables               |
| 9.    | Samples are:In Good Condition Broken                     | ου<br>. <b>Ω</b> <i>θ</i> |                          | ng<br>Air Bubbles<br>s requiring no head space.) |
| 10.   | Sample pH taken? NA [ ]                                  | pH<21 pH>21               | pH>9[] Amount l          | HNO <sub>3</sub> Added                           |
| 11.   | Sample Location, Sample Co<br>*For documentation only. N |                           | l.                       |  |
| 12.   | Were any anomalies identifi                              | ed in sample receipt?     | Yes[]                    | No   |
| .3.   | Description of anomalies (in                             | clude sample numbers):    |                          |  |
| Sam   | ple Custodian:   | DA                        |                          | Date: 6308                                       |
|       | Client Sample ID   | Analysis Requested        | Condition                | Comments/Action                                  |
|       |  |                           | Person Cont              | acted  |
| ]     | No action necessary; process a                           | 5 15.                     |                          |  |
| Proj: | ect Manager  |                           | Date                     |  |

| FLUOR HA   | NFORD             |           |                  |                      |                    |              |                                     |                                     | ANALYSIS I                                  |  |   | C.O.C.#  | W08         | -005                         | -304  |
|--|-------------------|-----------|------------------|----------------------|--------------------|--------------|-------------------------------------|-------------------------------------|---|--|---|--|-------------|------------------------------|---|
|  |                   |           | 78               | FOU                  |                    |              |                                     | DUE 7                               | 1808 KF                                     |  |   |  | ge <u>1</u> | of                           | 1   |
| Collector D. F   | . Williamson      |           |                  |                      |                    | Ontact/Re    |                                     |                                     |   | Telephone No. 509-373-5869                 | M                                       | SIN  | FAX         |                              |   |
| AF No.   |                   |           |                  |                      |                    | ampling (    |                                     |                                     |   | Purchase Order                             | Charge Code                             |  |             |                              |   |
| W08-005  |                   |           |                  |                      |                    | Hanford      |                                     |                                     |   |  |   |  |             |                              |   |
| roject Title   | 0.0               |           |                  |                      |                    | TIAN         | -N-506-                             | 16                                  |   | Ice Chest No.                              | 00-03-6                                 | oy Temp.   |             |                              |   |
| RCRA MAY 20  | 08                |           |                  |                      | M                  | lethod of    | Shipment                            |                                     |   | Bill of Lading/A                           |   | -  |             |                              |   |
| TestAmerica Inc  | ornorated Ric     | hland     |                  | Charles and the same |                    | Govt. Ve     |                                     |                                     |   | Dill of Eaglite/A                          | Dill 110.                               |  |             |                              |   |
| rotocol  |                   |           |                  |                      |                    |              | Pr                                  | iority: 45 Days                     |   | Offsite Property                           | No.                                     |  |             |                              |   |
| RCRA OSSIBLE SAME ** ** Contains Rai leasable per DOE On | dioactive Materia | al at con | centrations that | are not regula       | ted for transports | ation per 49 | OCFR but are not                    | SPECIAL INSTI<br>Site-Wide Generate | RUCTIONS Hole<br>or Knowledge Information F | d Time<br>orm applies.                     | Total                                   | Activity Exen  | nption:     | Yes 🗹                        | No 🗀  |
| Sample No.   | Lab ID            |           | Date             | Time                 | No/Type C          | ontainer     |                                     |                                     | Sample Analysis                             |  | *************************************** |  | Pres        | ervative                     |   |
| B1V829   |                   | W         | 6/03/08          | 1256                 | 1x20-mL F          | P            | Activity Scan                       |                                     |   |  | None                                    |  |             |                              |   |
| B1V829   |                   | W         | 4                | +                    | 2x4000-ml          | L G/P        | 1129LL_SEP_LE                       | PS_GS_LL: I-129                     | (1)   |  | None                                    |  |             |                              |   |
|  |                   |           |                  |                      |                    |              |                                     |                                     |   |  |   |  |             |                              |   |
|  |                   |           |                  |                      | 140                |              |                                     |                                     |   | 1400                                       |   |  |             |                              |   |
| Relinquished By Relinquished By Relinquished By          |                   | ind<br>/  | William          | <i>⊕01</i> ^ J       | JUN 0 3            | 2008         | Received By Received By Received By | ILANE                               | TAL   | JUN 0 3 20 Date/Time  JUN 0 3 20 Date/Time | 455 SE                                  | - Soil - Sediment - Solid - Sludge - Water - Oil - Air |             | DS = DI. = T = WI = I. = V = | Drum Solid<br>Drum Liqui<br>Tissue<br>Wine<br>Liquid<br>Vepetation<br>Other |
| Relinquished By  |                   |           |                  |                      | Date/Tin           | me           | Received By                         |                                     |   | Date/fime                                  |   |  | -           |                              |   |
| FINAL SAMPL<br>DISPOSITION                               |                   | Method    | (e g., Return to | customer, per        | lab procedure, u   | used in proc | eess)                               |                                     | Disposed By                                 |  |   | Dat  | e/Time      |                              |   |



| Date  | Time Received: 63                                    | 08 1425                   | GM Screen R                 | esult O. IK                                  |
|-------|--|---------------------------|-----------------------------|--|
| Clien | t: PGW   | SDG#:_ <u>い</u> るら        | 419 NA[] SAF#               | : W08-005 NA []                              |
| Wor   | k Order Number: <u>18</u> 6                          | 040165                    | Chain of Custody #_         | W08-005-304                                  |
| Ship  | ping Container ID:                                   |                           | Air Bill #                  |  |
| 1.    | Custody Seals on shipping                            | container intact?         | NA[] Yes]]                  | No [ ]                                       |
| 2.    | Custody Seals dated and sig                          | ned?                      | NA[] Yes                    | No [ ]                                       |
| 3.    | Chain of Custody record pro                          | esent?                    | NA[] Yes [X]                | No[]   |
| 4.    | Cooler Temperature:                                  | NA [7                     | 5. Vermiculite/packing mate | erials is NA [ Wet [ ] Dry [ ]               |
| 6.    | Number of samples in shipp                           | ning container:           |                             |  |
| 7.    | Sample holding times excee                           | eded?                     | NA [ Yes [ ] ]              | No [ ]                                       |
| 8     | Samples have: Tape Custody Seals                     |                           | Hazard Approp               | Lables<br>riate Sample Lables                |
| 9.    | Samples are: In Good Conditi Broken                  | on                        |                             | g<br>ir Bubbles<br>requiring no head space.) |
| 10.   | Sample pH taken? NA[]                                | pH<2[] pH>2[]             | pH>9[] Amount H             | NO <sub>3</sub> Added                        |
| . 11. | Sample Location, Sample C *For documentation only. } |                           | d.                          |  |
| 12.   | Were any anomalies identif                           | ied in sample receipt?    | Yes [ ] ]                   | Nost   |
| 13.   | Description of anomalies (in                         | nclude sample numbers): _ |                             |  |
| Sam   | ple Custodian:                                       | DR                        |                             | Date: 43 08                                  |
|       | Client Sample ID                                     | Analysis Requested        | Condition                   | Comments/Action                              |
|       |  |                           |                             |  |
| Clien | it Informed on                                       | by                        | Person Conta                | cted   |
| 1[]   | No action necessary; process a                       | s is.                     |                             |  |
|       |  |                           |                             |  |
| Proje | ct Manager   |                           | Date                        |  |

| FLUOR HAN  | FORD            |            | 78F    | F04018           | CHAIN OF                    | CUSTODY            | NAMPLE ANALYSI   | S REQUEST                       | C.o.c.                                       | 108-035-115 Page 1 of 1          |  |  |
|--|-----------------|------------|--------|------------------|-----------------------------|--------------------|--|---------------------------------|--|----------------------------------|--|--|
| Collector R.D.   | Julian          |            | 1210   | 1                | Contact/R                   |                    | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,                    | Telephone No.                   | MSIN   | FAX                              |  |  |
|  |                 |            |        | -                | Steve T                     |                    |  | 509-373-5869                    |  |                                  |  |  |
| IO8-035  |                 |            |        |                  | Sampling                    |                    |  | Purchase Order                  | /Charge Code                                 |                                  |  |  |
| roiect Title   |                 |            |        |                  |                             | NF-N-5             | N-12-  | Ice Chest No.                   | Tem  | D.                               |  |  |
| 100HR3IAM(1/2  | MAY 2008        |            |        |                  |                             |                    | 04-17  | nu er v                         | + niu si                                     |                                  |  |  |
| Test America Inco  | rnorated Ric    | hland      |        |                  | Govt. V                     | Shipment<br>chicle |  | Bill of Lading/A                | ar Bill No.                                  |                                  |  |  |
| rotocol  |                 |            |        |                  |                             |                    | riority: 45 Days   | Offsite Property No.            |  |                                  |  |  |
| CERCLA OSSIBLE SAMP ** Contains Rad leasable per DOE Ore | oactive Materia | at concent |        | are not regulate | ed for transportation per 4 |                    | SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Informat | Hold Time<br>tion Form applies. | Total Activity Ex                            | temption: Yes 🗹 No 🗆             |  |  |
| Sample No.   | Lab ID          |            | Date   | Time             | No/Type Container           |                    | Sample Analys  | is                              |  | Preservative                     |  |  |
| 31V5J7   |                 | Wa         | .03.08 | 1240             | 1x500-mL aG                 | 7196_CR6: He:      | xavalent Chromium (1)                                      |                                 | Cool~4C                                      |                                  |  |  |
| B1V5J7   |                 | W          | 4      | L                | 1x20-mL P                   | Activity Scan      |  |                                 | None   |                                  |  |  |
|  |                 |            |        |                  |                             |                    |  |                                 |  |                                  |  |  |
| elinquished By   | Print           | 11         | Sign   | > JUN            | 0 3 ZOOO                    |                    | Print Sign  SLANE TAL                                      | JUN 0 3 2008                    | vact   | Matrix *                         |  |  |
|  | - 4             | 1          |        |                  | Date/Time                   | Received By        | CANP /AL   | Date/Time                       | SF - Soil SF - Sedime SO - Solid SI - Shudge | T - Tissue                       |  |  |
| R. D. Julian   | -               |            |        |                  |                             |                    |  |                                 |  |                                  |  |  |
|  |                 |            |        |                  | Date/Time                   | Received By        |  | Date/Time                       | W - Water<br>O - Oil<br>A - Air              | 1 Liquid V - Vepetatio X - Other |  |  |



| Date  | Time Received: 63                                  | 08 1425                 | GM Screen F                | Result O.IK                                      |
|-------|--|-------------------------|----------------------------|--|
| Clien | t: Paw   | SDG #: _ ₩ △ 5          | 5419 NA[] SAF              | #: 108.035 NA[]                                  |
| Wor   | k Order Number: 08                                 | £040186                 | Chain of Custody #         | IO8-035-115                                      |
| Ship  | ping Container ID:                                 | NIA                     | Air Bill #                 | A  |
| 1.    | Custody Seals on shipping                          | container intact?       | NA[] Yes                   | No[]   |
| 2.    | Custody Seals dated and sig                        | gned?                   | NA[] Yes[]                 | No[]   |
| 3.    | Chain of Custody record pr                         | esent?                  | NA[] Yes                   | No [ ]   |
| 4.    | Cooler Temperature:                                | NAIT                    | 5. Vermiculite/packing mat | terials is NA [ Wet [ ] Dry [ ]                  |
| 6.    | Number of samples in shipp                         | ping container:         |                            |  |
| 7.    | Sample holding times exce                          | eded?                   | NA [ Yes [ ]               | No[]   |
| 8     | Samples have: Tape Custody Seals                   |                         |                            | d Lables<br>priate Sample Lables                 |
| 9.    | Samples are: In Good Condition Broken              | ion                     |                            | ng<br>Air Bubbles<br>s requiring no head space.) |
| 10.   | Sample pH taken? NA[]                              | pH<2[] pH>2]            | pH>9[] Amount B            | INO3 Added                                       |
| . 11. | Sample Location, Sample 0 *For documentation only. |                         | led.                       |  |
| 12.   | Were any anomalies identif                         | fied in sample receipt? | Yes[]                      | Noll   |
| 13.   | Description of anomalies (i                        | nclude sample numbers): |                            |  |
| Sam   | ple Custodian:                                     | Al                      |                            | Date: 6308                                       |
|       | Client Sample ID                                   | Analysis Requested      | Condition                  | Comments/Action                                  |
|       |  |                         |                            |  |
| Clien | t Informed on                                      | by                      | Person Conta               | acted  |
| []    | No action necessary; process                       | as is.                  |                            |  |
| Proje | ct Manager   |                         | Date                       |  |
|       |  |                         |                            |  |

| FLUOR HANFORD                                |                                     |              |               |                           | OF CUSTO               |                              |                       |                          |                           |                    | Г                           | C.O           | S(                         | 8-00                 | 3-176       |   |  |  |
|--|-------------------------------------|--------------|---------------|---------------------------|------------------------|------------------------------|-----------------------|--------------------------|---------------------------|--------------------|-----------------------------|---------------|----------------------------|----------------------|-------------|---|--|--|
|  |                                     |              | 181           | F050                      | 162 1                  | w05419                       | 0                     | UE 7                     | 1808                      | KPEI               | /W                          |               |                            | Page                 | <u>1</u> of | 1   |  |  |
| Collector                                    |                                     |              | Cont          | tact/Requester            |                        |                              |                       |                          | Telephone No. 509-373-586 |                    | MSIN                        | FAX           | 4                          |                      |             |   |  |  |
| AF No.                                       |                                     |              |               |                           |                        | pling Origin                 |                       |                          |                           |                    | Purchase Orde               |               | de                         |                      |             |   |  |  |
| S08-003                                      |                                     | _            |               |                           |                        | anford Site                  |                       |                          | -                         |                    | Ice Chest No.               |               | 1                          | Cemp.                |             |   |  |  |
| rolect Title<br>SURV. MARCH                  | 2008                                |              |               |                           |                        | ITHE-N-506                   | 2-15                  | ,                        |                           |                    | ice Chest No.               |               |                            | emp.                 |             |   |  |  |
| hinned To (Lab)                              |                                     |              |               |                           |                        | hod of Shipment              |                       |                          |                           |                    | Bill of Lading/             | Air Bill No.  |                            |                      |             |   |  |  |
| TestAmerica Inco                             | rnorated Ric                        | hland        |               |                           | G                      | ovt. Vehicle                 |                       | Offsite Property No.     |                           |                    |                             |               |                            |                      |             |   |  |  |
| SURV   |                                     |              |               |                           |                        |                              | Pric                  | ority: 45 Da             |                           |                    |                             |               |                            | v Exemption          |             | 4 1                                       |  |  |
| ** ** Contains Radi<br>eleasable per DOE Ord | oactive Materia                     | al at concen | trations that | are not regula            | ted for transportation | on per 49 CFR but are no     | ot                    | SPECIAL I<br>Site-Wide G |                           | vledge Information | old Time<br>1 Form applies. | 7010          |                            |                      |             |   |  |  |
| Sample No.                                   | ample No. Lab ID * Date Time No/Typ |              |               |                           | No/Type Cont           | pe Container Sample Analysis |                       |                          |                           |                    |                             | 1             |                            |                      |             | ve  |  |  |
| B1TKC2                                       |                                     | WIA          | 408           | 1319                      | 1x1000-mL F            |                              | PHABE                 | A_GPC: Alp               | ha + Beta                 | (2)                |                             | HNO3 to pH <2 |                            |                      |             |   |  |  |
| B1TKC2                                       |                                     | w            | 1             | 1 1x20-mL P Activity Scan |                        |                              |                       |                          |                           |                    |                             | None          |                            |                      |             |   |  |  |
| B1TKC2                                       |                                     | w            |               |                           | 1x500-mL G             |                              |                       |                          |                           |                    |                             | HNO3 to pH <2 |                            |                      |             |   |  |  |
|  |                                     |              |               |                           |                        |                              |                       |                          |                           |                    |                             |               |                            |                      |             |   |  |  |
|  |                                     |              |               |                           |                        |                              |                       |                          |                           |                    |                             |               |                            |                      |             |   |  |  |
| 4  |                                     |              |               |                           |                        |                              |                       |                          |                           |                    |                             |               |                            |                      |             |   |  |  |
| Relinquished By <b>D. Woo</b>                | Print Print                         | Day,         | Sign          | le.                       | JUN 0 4                | 2008 FX                      | 2                     | Print<br>J LAUE          | = TA                      | Sign               | JUN 0 4                     | S             | – Sr                       | nil .                |             | - Drum Sc                                 |  |  |
| Relinquished By                              |                                     | 00           |               |                           | Date/Time              |                              |                       |                          |                           |                    | Date/Time                   | S             | O = Sc<br>I. = SI<br>I = W | nlid<br>udee<br>ater | WI<br>I.    | = Drum Li<br>= Tissue<br>= Wine<br>Liquid |  |  |
| Relinquished By                              |                                     |              |               |                           | Date/Time              | Received By                  |                       |                          |                           |                    | Date/Time                   | A             |                            |                      |             | <ul><li>Vevetati</li><li>Other</li></ul>  |  |  |
| Relinquished By                              |                                     |              |               |                           | Date/Time              | Received By                  | Received By Date/Time |                          |                           |                    |                             |               |                            |                      |             |   |  |  |
| FINAL SAMPL                                  | F Disnosal                          | Method (=    | e Return to   | customer se               | r lab procedure, used  | d in process)                |                       |                          | Dispos                    | sed By             |                             |               |                            | Date/Tim             | ie          |   |  |  |

DISPOSITION



| Date  | Time Received: 64                                       | 08 1350                   | GM Screen R  | esult O, IK                    |  |  |  |  |  |  |  |
|-------|---|---------------------------|--|--------------------------------|--|--|--|--|--|--|--|
| Clier | it: PGW   | SDG#: WOS                 | 419 NALL SAF   | 1: 508-003 NA[]                |  |  |  |  |  |  |  |
| Wor   | k Order Number: <u>186</u>                              | -050162                   | Chain of Custody # _   | 508-003-176                    |  |  |  |  |  |  |  |
| Ship  | ping Container ID:                                      |                           | Air Bill #   |                                |  |  |  |  |  |  |  |
| ١.    | Custody Seals on shipping                               | container intact?         | NA [ ] Yes [ ]   | No [ ]                         |  |  |  |  |  |  |  |
| 2.    | Custody Seals dated and sig                             | ned?                      | NA[] Yes[/]  | No [ ]                         |  |  |  |  |  |  |  |
| 3.    | Chain of Custody record pro                             | esent?                    | NA[] Yes[X   | No [ ]                         |  |  |  |  |  |  |  |
| 4.    | Cooler Temperature:                                     | NA!T                      | 5. Vermiculite/packing mate  | erials is NA [ Wet [ ] Dry [ ] |  |  |  |  |  |  |  |
| 6.    | Number of samples in shipp                              | oing container:           |  |                                |  |  |  |  |  |  |  |
| 7.    | Sample holding times excee                              | eded?                     | NA [ Yes [ ] No [ ]  |                                |  |  |  |  |  |  |  |
| 8     | Samples have: Tape Custody Seals                        |                           | Hazard Lables Appropriate Sample Lables                              |                                |  |  |  |  |  |  |  |
| 9.    | Samples are: In Good Conditi Broken                     | on                        | Leaking Have Air Bubbles (Only for samples requiring no head space.) |                                |  |  |  |  |  |  |  |
| 10.   | Sample pH taken? NA [ ]                                 | pH<2 [ ] pH>2 [ ]         | pH>9[] Amount H  | NO <sub>3</sub> Added          |  |  |  |  |  |  |  |
| . 11. | Sample Location, Sample C<br>*For documentation only. 1 |                           | d.   |                                |  |  |  |  |  |  |  |
| ±2.   | Were any anomalies identif                              | ied in sample receipt?    | Yes [ ] ]  | No []                          |  |  |  |  |  |  |  |
| 13.   | Description of anomalies (in                            | nclude sample numbers): _ |  |                                |  |  |  |  |  |  |  |
| Sam   | ple Custodian:  | RA                        |  | Date: 6 408                    |  |  |  |  |  |  |  |
|       | Client Sample ID  | Analysis Requested        | Condition  | Comments/Action                |  |  |  |  |  |  |  |
|       |   |                           |  |                                |  |  |  |  |  |  |  |
| Clien | at Informed on  | by                        | Person Conta   | cted                           |  |  |  |  |  |  |  |
| []    | No action necessary; process a                          | s is.                     |  |                                |  |  |  |  |  |  |  |
|       |   |                           |  |                                |  |  |  |  |  |  |  |
| Proje | ect Manager   |                           | Date   |                                |  |  |  |  |  |  |  |

| FLUOR HANFORD CHA   |  | CHAIN              | IN OF CUSTODY/SAMPLE ANALYSIS REQUES |           |                 |                    |  |                                   |  | Г 108-037-79 |               |  |   | 37-79   |                |   |              |            |  |  |
|---|--|--------------------|--------------------------------------|-----------|-----------------|--------------------|--|-----------------------------------|--|--------------|---------------|--|---|---|----------------|---|--------------|------------|--|--|
|   |  |                    |                                      | 18        |                 |                    |  |                                   |  |              |               |  |   |   |                | Page  | <u>1</u> of  | 1          |  |  |
| Collector   |  |                    |                                      |           |                 | Co                 |  |                                   |  |              |               |  | Telephone No. MSIN FAX  |   |                |   |              |            |  |  |
|   |  |                    |                                      |           |                 | Steve Tr<br>mpling |  |                                   |  |              |               | 509-373-5869<br>Purchase Order/Charge Code |   |   |                |   |              |            |  |  |
| 108-037   |  |                    |                                      |           |                 |                    | Hanford  |                                   |  |              |               |  |   |   |                |   |              |            |  |  |
| roiect Title<br>2UP1, MAY 200   | 9  |                    |                                      |           |                 |                    | HNF  | -N-500-17                         |  |              |               |  | Ice Chest No.   |   | Т              | emp.  |              |            |  |  |
| hinned To (Lah)   | PROPERTY AND THE PERSON OF THE PERSON OF | - Allerton         |                                      |           |                 |                    |  | Shipment                          |  |              |               |  | Bill of Lading/   | Air Bill N  | io.            |   |              |            |  |  |
| TestAmerica Incorporated Richland Govt                                  |  |                    |                                      |           |                 |                    | Govt. V  | om.                               |  |              |               |  |   | fsite Property No.  |                |   |              |            |  |  |
| SURV  |  |                    |                                      |           |                 |                    |  | Priority: 45 Days                 |  |              |               |  |   |   | m              | 41  |              |            |  |  |
| OSSIBLE SAMP  ** ** Contains Rac deasable per DOE Or                    | dioactive Materia                        | al at cor          | ncentrati                            | ons that  | are not regulat | ed for transportat | tion per 4   | 9 CFR but are not                 |  |              | nowledge Info |  | Time<br>m applies.  |   | Total Activity | exempti                                       | on. Yes      | 2 NO L.    |  |  |
| Sample No.  | Lab ID                                   | * Date Time No/Typ |                                      |           |                 | No/Type Co         | Container Sample Analysis                            |                                   |  |              |               |  |   |   |                |   | Preservative |            |  |  |
| B1V9T9  |  | W                  | 6-4                                  | 80-1      | 0930            | 1x20-mL P          |  | Activity Scan                     |  |              |               |  |   | None  |                |   |              |            |  |  |
| B1V9T9  |  | W                  |                                      |           |                 | 2x1000-mL          | G/P  | C14_LSC: C-14 (1)_                |  |              |               |  |   | None  |                |   |              |            |  |  |
| B1V9T9  |  | W                  |                                      |           |                 | 1x4000-mL          | G/P  | GAMMALL_GS: List-1 (9) /          |  |              |               |  |   | HNO3 to pH <2   |                |   |              |            |  |  |
| B1V9T9  |  | W                  |                                      |           |                 | 2x4000-mL          | G/P  | 1129LL_SEP_LEPS_GS_LL: 1-129 (1)- |  |              |               |  |   | None  |                |   |              |            |  |  |
| B1V9T9  |  | W                  |                                      |           |                 | 2x1000-mL          | G/P  | Selenium-79                       |  |              |               |  | HNO3 to pH <2   |   |                |   |              |            |  |  |
| B1V9T9  |  | W                  |                                      |           |                 | 1x1000-mL          | G/P  | UISO_PLATE_AEA: List-1 (3) ~      |  |              |               |  |   | HNO3 to pH <2   |                |   |              |            |  |  |
| B1V9T9  |  | W                  |                                      | -         | L               | 1x1000-mL          | G/P  | NP237_LLE_PLATE_AEA:Np-237(1) /   |  |              |               |  |   | HNO3  | to pH <2       |   |              |            |  |  |
|   |  | -                  |                                      |           |                 |                    |  |                                   |  |              |               |  |   |   |                |   |              |            |  |  |
|   |  |                    |                                      |           |                 |                    |  |                                   |  |              |               |  |   |   |                |   |              |            |  |  |
|   |  |                    |                                      |           |                 |                    |  |                                   |  |              |               |  |   |   |                |   |              |            |  |  |
|   |  |                    |                                      |           |                 |                    |  |                                   |  |              |               |  |   |   |                |   |              |            |  |  |
|   |  |                    |                                      |           |                 |                    |  |                                   |  |              |               |  |   |   |                |   |              |            |  |  |
| Relinquished By  Print Sign  Date/Time (35)  Relinquished By  Date/Time |  |                    |                                      |           |                 |                    | Received By Print Sign JUN 0 4 Received By Date/Time |                                   |  |              |               |  | S = Soil DS<br>SE = Setlment DI.<br>SO - Solid T.<br>SI Sludge WI |   |                | - Drum So<br>- Drum Lis<br>- Tissue<br>- Wine |              |            |  |  |
| Relinquished By Date/T  |  |                    |                                      |           |                 | Date/Tim           | ie   | Received By Date/Tim              |  |              |               |  |   | W - Water I. = Limid O - Oil V - Vereta A - Air X - Other |                |   |              | Veretation |  |  |
| Relinquished By   |  |                    |                                      |           |                 | Date/Tim           | ne   | Received By                       |  |              |               |  | Date/Tim  | e   |                |   |              |            |  |  |
| FINAL SAMPI<br>DISPOSITION  |  | Metho              | d (c.g., I                           | Return to | o customer, per | lab procedure, us  | sed in pro   | cess)                             |  | Di           | sposed By     |  |   |   |                | Date/Ti                                       | me           |            |  |  |



### Sample Check-in List

| Date    | Time Received: 64                                  | 08 1350                 | GM Screen               | Result Oll   |
|---------|--|-------------------------|-------------------------|--|
| Client  | : Paw  | SDG #: WO5              | 419 NAL   SA            | F#: IO8-037 NA[]   |
| Worl    | Order Number: 186                                  | 7050164                 | Chain of Custody        | # <u>I08-037</u>   |
| Shipp   | oing Container ID:                                 |                         | Air Bill #              |  |
| 1,      | Custody Seals on shipping                          | container intact?       | NA[] Yes                | ) No[]   |
| 2.      | Custody Seals dated and sig                        | ned?                    | NA[] Yes                | ] No[]   |
| 3.      | Chain of Custody record pr                         | esent?                  | NA[] Yes                | T No[]   |
| 4.      | Cooler Temperature:                                | NA LY S                 | . Vermiculite/packing r | materials is NA [ Wet [ ] Dry [ ]                        |
| 6.      | Number of samples in shipp                         | oing container: /       |                         |  |
| 7.      | Sample holding times exceed                        | eded?                   | NA / Yes [              | ) No[]   |
| 8       | Samples have: Tape Custody Seals                   |                         |                         | card Lables<br>propriate Sample Lables                   |
| 9.      | Samples are:In Good ConditiBroken                  | on                      | Hav                     | king<br>ve Air Bubbles<br>vles requiring no head space.) |
| 10.     | Sample pH taken? NA [ ]                            | pH<2 // pH>2 //         | pH>9[] Amoun            | t HNO3 Added   |
| 11.     | Sample Location, Sample C *For documentation only. |                         | 1.                      |  |
| 12.     | Were any anomalies identif                         | led in sample receipt?  | Yes [                   | ] No [7  |
| 13.     | Description of anomalies (i                        | nclude sample numbers): |                         |  |
| Samp    | ole Custodian:                                     | RH                      |                         | Date: 4 4 0 8  |
| [       | Client Sample ID                                   | Analysis Requested      | Condition               | Comments/Action  |
|         |  |                         |                         |  |
| Clien   | Informed on  | by                      | Person Co               | ontacted   |
| [] N    | lo action necessary; process                       | as is.                  |                         |  |
| Project | ct Manager   |                         | Date                    |  |
| , 10]   |  |                         |                         |  |

| FLUOR HA                              | NFORD             |           |                    |  |                            |                       | /SAMPLE ANALY   |                                     | C.o.c.   | S08-001-162                 |
|---------------------------------------|-------------------|-----------|--------------------|--|----------------------------|-----------------------|---|-------------------------------------|--|-----------------------------|
|                                       |                   |           | 18                 | FOST   | 3177 W                     | 005419                | DUE 71808 KF  | EX6                                 | P  | age <u>1</u> of <u>1</u>    |
| Collector                             | . Woehle          |           |                    |  | Contact                    | Requester<br>Trent    |   | Telephone No.<br>509-373-5869       | MSIN   | FAX                         |
| SAF No.                               |                   |           |                    |  |                            | ig Origin             |   | Purchase Order                      |  |                             |
| S08-001                               |                   |           |                    |  |                            | ord Site              |   |                                     |  |                             |
| Project Title<br>SURV.JANUAF          | RY 2008           |           |                    |  | itt                        | 4F-N-506-12           |   | Ice Chest No.                       | Tem  | ).                          |
| Shinned To (Lah)                      |                   |           |                    |  |                            | of Shipment           |   | Bill of Lading/A                    | ir Bill No.  |                             |
| TestAmerica Inc<br>Protocol           | ornorated Ric     | hland     |                    |  | Goyt.                      | Vehicle               |   | Offsite Property                    | v No   |                             |
| SURV                                  |                   |           |                    |  |                            | Pr                    | iority: 45 Days   | Olisite Properti                    |  |                             |
| ** Contains Rate cleasable per DOE On | dioactive Materia | al at cor | centrations that   | are not regula                                   | nted for transportation pe | er 49 CFR but are not | SPECIAL INSTRUCTIONS Site-Wide Generator Knowledge Info | Hold Time<br>ermation Form applies. | Total Activity Ex                                  | emption: Yes 🗹 No 🗀         |
| Sample No.                            | Lab ID            |           | Date               | Time   | No/Type Contain            | er                    | Sample Ana  | lysis                               |  | Preservative                |
| B1RTP0                                |                   | W         | 6.4-08             | 1117   | 1x20-mL P                  | Activity Scan         |   |                                     | None   |                             |
| B1RTP0                                |                   | W         |                    | 1  | 3x1000-mL G/P              | SRISO_SEP_PI          | RECIP_GPC: Sr-90 (1)                                    |                                     | HNO3 to pH <2                                      |                             |
| B1RTP0                                |                   | w         |                    |  | 2x4000-mL G/P              | I129LL_SEP_LE         | PS_GS_LL: I-129 (1)                                     |                                     | None   |                             |
| B1RTP0                                | -                 | W         |                    |  | 1x1000-mL P                | 9310_ALPHABE          | TA_GPC: Alpha + Beta (2)                                |                                     | HNO3 to pH <2                                      |                             |
| B1RTP0                                |                   | W         |                    |  | 1x4000-mL G/P              | GAMMALL_GS:           | List-1 (9) =  |                                     | HNO3 to pH <2                                      |                             |
|                                       | -                 | 1         |                    |  |                            |                       |   |                                     |  |                             |
|                                       |                   | +         |                    |  |                            | 1                     |   |                                     | -  |                             |
|                                       |                   | +         |                    |  |                            |                       |   |                                     |  |                             |
|                                       | <del> </del>      | +         |                    |  | 1                          |                       |   | ,, quart 1                          | -  |                             |
|                                       | -                 | +         |                    | <del>                                     </del> |                            |                       |   |                                     |  |                             |
|                                       | -                 | +         |                    | _  |                            |                       |   |                                     |  |                             |
|                                       |                   | +         |                    |  |                            |                       |   |                                     |  |                             |
|                                       | -                 | +-        |                    | -  |                            |                       |   |                                     |  |                             |
|                                       |                   | +         |                    |  |                            |                       |   |                                     |  |                             |
|                                       |                   | +         | -                  | -  | -                          | -                     |   |                                     | 1  |                             |
|                                       | -                 | +         |                    |  | -                          |                       |   |                                     | -  | ****                        |
| Relinquished By                       | Print             | _         | Sign               |  | Date/Time/3                | 50 Received By        | Print Sign  | Date/Time                           |  | Matrix *                    |
| D. Woe                                |                   | lu        | 1 like             | le J   | UN 0°4°2008                | XXL                   | ILANE TAL   | JUN n 42008,                        | 1350 S = Soil                                      | DS - Drum Solid             |
| Relinquished By                       |                   | 0         |                    |  | Date/Time                  | Received By           |   | Date/Time                           | SF - Sedimer<br>SO - Solid<br>SI Sludge<br>W Water |                             |
| Relinquished By                       |                   |           |                    |  | Date/Time                  | Received By           |   | Date/Time                           | O ~ Oil<br>A ~ Air                                 | V = Veretation<br>X = Other |
| Relinquished By                       |                   |           |                    |  | Date/Time                  | Received By           |   | Date/Time                           |  |                             |
| FINAL SAMPI.                          |                   | Method    | i (e.g., Return to | customer, pe                                     | r lab procedure, used in   | process)              | Disposed By   |                                     | D  | ate/Time                    |



#### Sample Check-in List

| Date  | Time Received: 64                                  | 08 1350                 | GM Scr              | reen Result Dilk  |
|-------|--|-------------------------|---------------------|---|
| Clien | it: Paw  | SDG #: WO54             | 119 NAI 1           | SAF #: 508-001 NA[]   |
| Wor   | k Order Number: <u>18</u> F                        | 050177                  | Chain of Custo      | ody#_S08-00(  |
| Ship  | ping Container ID:                                 |                         | Air Bill#           |   |
| 1.    | Custody Seals on shipping                          | container intact?       | NA[] Y              | es [ No [ ]   |
| 2.    | Custody Seals dated and sig                        | med?                    | NA[] Y              | es [] No []   |
| 3.    | Chain of Custody record pro                        | esent?                  | NA[] Y              | es [ ] No [ ]   |
| 4.    | Cooler Temperature:                                | NA [ 7 S                | . Vermiculite/packi | ng materials is NA [ Wet [ ] Dry [ ]                            |
| 6.    | Number of samples in shipp                         | oing container:         |                     |   |
| 7.    | Sample holding times exceed                        | eded?                   | NA [ Y              | es[] No[]   |
| 8     | Samples have: Tape Custody Seals                   |                         |                     | Hazard Lables<br>Appropriate Sample Lables                      |
| 9.    | Samples are: In Good Conditi Broken                | on                      |                     | Leaking<br>Have Air Bubbles<br>amples requiring no head space.) |
| 10.   | Sample pH taken? NA [ ]                            | pH<2   pH>2             | pH>9[] Am           | ount HNO <sub>3</sub> Added                                     |
| 11.   | Sample Location, Sample Co*For documentation only. |                         |                     |   |
| 12.   | Were any anomalies identif                         | ied in sample receipt?  | Y                   | es[] No[]   |
| 13.   | Description of anomalies (in                       | nclude sample numbers): |                     |   |
| Sam   | ple Custodian:                                     | Ah                      |                     | Date: 6408  |
|       | Client Sample ID                                   | Analysis Requested      | Condition           | Comments/Action   |
|       |  |                         |                     |   |
| Clien | t Informed on                                      | by                      | Person              | Contacted   |
| []    | No action necessary; process a                     | es is.                  |                     |   |
|       |  |                         |                     |   |
| Proje | ct Manager   |                         | D                   | ate   |

| 6/18/2008 7:29:02 AM  |                       |                                  |                             | Sample Prep   | aration/Ana                            | lysis                      |                | Balance                         | ld:1120373922   |                |
|---|-----------------------|----------------------------------|-----------------------------|---|--|----------------------------|----------------|---------------------------------|---|----------------|
| 384868, Pacific Northw<br>Pacific Northwest Nation<br>AnalyDueDate: 07/21 | nal Lab               | l Laboratory ,                   | SR Uranii                   | PrpRC5016/5086, S<br>um-234,235,238 by<br>IT: HANFORD |  | 9)                         |                | Pipe<br>Sep1 DT/Tm Te           |   |                |
| Batch: 8164623 V<br>SEQ Batch, Test: None                                 | VATER<br>All Tests: 8 | <b>pCi/L</b><br>3164617 AWTA, 81 | 64618 BNTB, 81              | 64621 CYTM, 81646                                     | uote: SS , 576<br>22 KOXW, 81646       | 23 7YSR, 8164              | 524 5SS3,      | Sep2 DT/Tm Tec                  | ch:<br>ch: WoodT  |                |
| Work Order, Lot, To<br>Sample Date  | tal Amt<br>/Unit      | Total<br>Acidified/Unit          | Initial Aliquot<br>Amt/Unit | Adj Aliq Amt<br>(Un-Acidified)                        | QC Tracer<br>Prep Date                 | Count<br>Time Min          | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date                                      | Comment        |
| 1 KN1JT-1-AG<br>J8E280299-1-SAMP  |                       | -111 11 11 11 1 <b>1 11 11</b>   | 200.01g,in                  | 200.01g   | UITC19833<br>05/19/08,pd<br>06/15/01,r | 50:                        |                |                                 |   |                |
| 05/27/2008 09:57  |                       | AmtF                             | Rec: 20ML,6XLP,3X4          |   |  |                            | Scr:           | Alpha: -1.54E-03 uCi/Sa         | Beta: 2   | 66E-03 uCi/Sa  |
| 2 KN1JT-1-AJ-X<br>J8E280299-1-DUP   |                       |                                  | 200.01g,in                  | 200.01g   | 05/19/08,pd<br>06/15/01,r              | \                          |                |                                 |   |                |
| 05/27/2008 09:57  |                       |                                  | Rec: 20ML,6XLP,3X4          | LP #Containers; 10                                    |  |                            | Scr:           | Alpha: -1.54E-03 uCi/Sa         | Beta: 2   | 66E-03 uCi/Sa  |
| 3 KN1JX-1-AG  |                       |                                  | 200.03g,in                  | 200.03g   | UITC19867<br>05/20/08.pd               | 1                          |                |                                 |   |                |
| J8E280299-2-SAMP<br>  |                       |                                  | Rec: 20ML,6XLP,3X4          | LP #Containers: 10                                    | 06/15/01,r                             | -                          | Scr:           | Alpha: 4.10E-04 uCi/Sa          | Beta: -1  | .24E-04 uCi/Sa |
| 4 KPEV3-1-AG<br>J8F050164-1-SAMP  | 111 131 100           |                                  | 200.03g,in                  | 200.03g   | UITC19868<br>05/20/08,pd<br>06/15/01,r |                            |                |                                 |   |                |
| 06/04/2008 09:30  | 411 14 11             | AmtF                             | Rec: VIAL20,6XLP,3)         | 4LP #Containers: 10                                   |  | ;                          | Scr:           | Alpha: 1.30E-03 uCi/Sa          | Beta: -1  | .04E-03 uCi/Sa |
| 5 KPVM4-1-AA-B<br>J8F120000-623-BLK                                       |                       |                                  | 200.04g,in                  | 200.04g   | UITC19869<br>05/20/08.pd<br>06/15/01,r | and a state of             |                |                                 |   |                |
| 05/27/2008 09:57  |                       | Amtf                             |                             | Containers: 1   |  |                            | Scr:           | Alpha:                          | TO SECTION AND SECTION AND AND AND AND AND AND AND AND AND AN | Beta:          |
| 6 KPVM4-1-AC-C<br>J8F120000-623-LCS                                       |                       |                                  | 200.05g,in                  | 200.05g   | UISG1652<br>04/23/08,pd<br>06/15/01,r  | . Programme and the second |                |                                 |   |                |
| 05/27/2008 09:57  |                       | Amti                             | Rec:                        | Containers: 1   |  | \                          | Scr:           | Alpha:                          |   | Beta:          |

| TES  | 6/18/2008 7:29:04 AM                    |
|------|---|
| TAME | AnalyDueDate: 07/21/                    |
| RICA | Batch: 8164623<br>SEQ Batch, Test: None |

#### Sample Preparation/Analysis

Balance Id:1120373922

7Y Ulso PrpRC5016/5086, SepRC5067(5039) SR Uranium-234,235,238 by Alpha Spec

51 CLIENT: HANFORD

Pipet #:

Sep1 DT/Tm Tech:

AnalyDueDate: 07/21/2008

Batch: 8164623

pCi/L

Sep2 DT/Tm Tech:

I INDIAL INIBI SIDIO BILLI DINIO ALLEO LLONG TILLIANI

Prep Tech: ,WoodT

| Work Order, Lot,<br>Sample Date | Total Amt<br>/Unit | Total<br>Acidified/Unit | Initial Aliquot<br>Amt/Unit | Adj Aliq Amt<br>(Un-Acidified) | QC Tracer<br>Prep Date | Count<br>Time Min | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comments: |
|---------------------------------|--------------------|-------------------------|-----------------------------|--------------------------------|------------------------|-------------------|----------------|---------------------------------|--------------------------|-----------|
|                                 |                    |                         |                             |                                |                        |                   |                |                                 |                          |           |

14/ 620 351 4/18/08 Comments:

|                       | for Batch:<br>Pacific Northwes | st National | Laboratory | Pacific    | Northwest Nati | onal Lab, | ss , 57671   |       |        |         |        |
|-----------------------|--------------------------------|-------------|------------|------------|----------------|-----------|--------------|-------|--------|---------|--------|
| KN1JT1AG-SA           | MP Constituent Li              | st:         |            |            |                |           |              |       |        |         |        |
| U-232                 | RDL:                           | pCi/L       | LCL:20     | UCL:105    | RPD:20         | U-234     | RDL:1.00E+00 | pCi/L | LCL:   | UCL:    | RPD:   |
| ∇-235                 | RDL:1.00E+00                   | pCi/L       | LCL:       | UCL:       | RPD:           | U-238     | RDL:1.00E+00 | pCi/L | LCL:   | UCL:    | RPD:   |
| KPVM41AA-BL           | K:                             |             |            |            |                |           |              |       |        |         |        |
| U-232                 | RDL:                           | pCi/L       | LCL:20     | UCL:105    | RPD:20         | U-234     | RDL:1.00E+00 | pCi/L | LCL:   | UCL:    | RPD:   |
| υ-232<br>υ-235        | RDL:1.00E+00                   | pCi/L       | LCL:       | UCL:       | RPD:           | U-238     | RDL:1.00E+00 | pCi/L | LCL:   | UCL:    | RPD:   |
| KPVM41AC-LC           | S:                             |             |            |            |                |           |              |       |        |         |        |
| U-232                 | RDL:                           | pCi/L       | LCL:20     | UCL:105    | RPD:20         | Uranium   | RDL:         | pCi/L | LCL:70 | UCL:130 | RPD:20 |
| KN1JT1AG-SA           | MP Calc Info:                  |             |            |            |                |           |              |       |        |         |        |
| Uncert<br>KPVM41AA-BL | Level (#s).: 2                 | Decay to    | SaDt: Y    | Blk Subt.: | N Sci.Not.     | : Y ODR   | s: B         |       |        |         |        |
|                       | Level (#s).: 2                 | Decay to    | SaDt: Y    | Blk Subt.: | N Sci.Not.     | · V ODR   | s: B         |       |        |         |        |
| KPVM41AC-LC           |                                | Decay co    | Jape. 1    | Dan Guber. | n bozinos:     |           |              |       |        |         |        |
| Uncert                | Level (#s).: 2                 | Decay to    | SaDt: Y    | Blk Subt.: | N Sci.Not.     | 1 Y ODR   | s: B         |       |        |         |        |
|                       |                                |             |            |            |                |           |              |       |        |         |        |

6/27/2008 10:37:27 AM

### ICOC Fraction Transfer/Status Report ByDate: 6/28/2007, 7/2/2008, Batch: '8164623', User: 'ALL Order By DateTimeAccepting

| Batch Work | Ord CurStat | us A            | ccepting        |                       | Comments                |
|------------|-------------|-----------------|-----------------|-----------------------|-------------------------|
| 8164623    |             |                 | 7777            |                       |                         |
| 4C         | Rev1C       | WoodT           | 6/18/2008 7:04  | :54                   |                         |
| SC         |             | wagarr          | IsBatched       | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32    |
| SC .       |             | WcodT           | InPrep          | 6/18/2008 7:04:54 AM  | RICH-RC-5016 Revision 7 |
| SC .       |             | WcodT           | Prep1C          | 6/18/2008 7:29:27 AM  | RICH-RC-5016 REVISION 7 |
| SC         |             | AshworthA       | Prep2C          | 6/19/2008 11:36:14 AM | RICH-RC-5086 REV3       |
| SC .       |             | AshworthA       | Sep1C           | 6/19/2008 3:02:46 PM  | RICH-RC-5067 REV8       |
| SC         |             | AshworthA       | Sep2C           | 6/20/2008 12:36:02 PM | ALP-015 REVISION 0      |
| SC .       |             | <b>DAWKINSO</b> | CalcC           | 6/20/2008 9:01:27 PM  | RL-CI-008 REVISION 0    |
| C          |             | whelands        | Rev1C           | 6/27:2008 10:37:21 AM | RICH-RC-0002 REV 8      |
| C          |             | WoodT           | 6/18/2008 7:29: | 27                    |                         |
| C          |             | AshworthA       | 6/19/2008 11:3  | 6:14                  |                         |
| C          |             | AshworthA       | 6/19/2008 3:02: | 46 PM                 |                         |
| C          |             | AshworthA       | 6/20/2008 12:3  | 6:02                  |                         |
| C          |             | DAWKINSO        | 6/20/2008 9:01: | 27 PM                 |                         |
| AC .       |             | wheiands        | 6/27/2008 10:3  | 7:21                  |                         |
|            |             |                 |                 |                       |                         |

AC: Accepting Entry; SC: Status Change

TAL Richland Richland Wa.

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Grp Rec Cnt: 7 ICOCFractions v4.8.33

| H       | 6/24/2008 3:49:51 PM        |                                    | Sar                           | nple Prepa                | ration/A                                | nalysis  |                 |          | Balance Id:1            | 120482733    |   |
|---------|-----------------------------|------------------------------------|-------------------------------|---------------------------|---|----------|-----------------|----------|-------------------------|--------------|---|
| STAMERI | 384868 Pacific Northwest Na |                                    | KO Np-237 Prp<br>KW Neptunium | -237 with trace           |   |          |                 |          | Pipet #:                | Mala         | DRM                                     |
| 1ER     | AnalyDueDate: 07/21/2008    | 1005419                            | 51 CLIENT: HA                 | ANFORD                    |   |          |                 |          | Sep1 DT/Tm Tech:        | 19/20/08     | 10,40H                                  |
| ICA     |                             | P pCi/L                            |                               | PM, Qu                    | ote: SS,                                | 57671    |                 |          | Sep2 DT/Tm Tech:        |              |   |
| A       | SEQ Batch, Test: None       |                                    |                               |                           |   |          |                 |          | Prep Tech:              | WoodT,Harris | D                                       |
|         | Work Ord, Lot,   Total Amt  | Total   Initial Aliquot            | Adj Aliq Amt                  | QC Tracer                 | Dish                                    | Ppt or   | Count           | Detec    | ctor   Count On   Off   | CR Analyst,  | Comments:                               |
|         | Sample Date /Unit           | Acidified/Unit Amt/Unit            | (Un-Acidified)                | Prep Date                 | Size                                    | Geometry | Time Min        | Id       |                         | Init/Date    | O O I I I I I I I I I I I I I I I I I I |
|         | 1 KN1JT-1-AA                | 200.00g,in                         | 200.00g                       | NPTA7080                  |   |          | 200             | )        |                         |              |   |
|         | J8E280299-1-SAMP            |                                    |                               | 05/15/08,pd               |   |          | ,               |          |                         |              |   |
| 31      |                             | AmtRec: 201                        | ML,6XLP,3X4LP                 | #Containers: 10           |   |          |                 | Scr:     | Alpha: -1.54E-03 uCi/Sa | Reta: 2      | 66E-03 uCi/Sa                           |
|         | 2 KN1JX-1-AA                | 200.00g,in                         | 200.00g                       | NPTA7081                  |   |          |                 |          | 71p112. 1.072 00 0000   | Bout. E.     | 001-00 00008                            |
| d       | J8E280299-2-SAMP            |                                    |                               | 05/15/08,pd               |   |          |                 |          |                         |              |   |
| 38      |                             |                                    |                               | 6/01/01,r                 |   | •••••    |                 | ****     |                         |              | *************************************** |
|         | 05/27/2008 11:13            | AmtRec: 201                        | ML,6XLP,3X4LP                 | #Containers: 10           |   |          |                 | Scr:     | Alpha: 4.10E-04 uCi/Sa  | Beta: -1     | 24E-04 uCi/\$a                          |
| CÁ      | 3 KN1JX-1-AH-X              | 199.90g,in                         | 199.90g                       | NPTA7074                  |   |          |                 |          |                         |              |   |
| 3       | J8E280299-2-DUP             |                                    |                               | 05/15/08,pd<br>06/01/01,r |   |          |                 |          |                         |              |   |
| ,<br>L  | 05/27/2008 11:13            |                                    | ML.6XLP.3X4LP                 | #Containers: 10           |   |          |                 | Scr:     | Alpha: 4.10E-04 uCi/Sa  | Pote: 1      | 24E-04 uCi/Sa                           |
| 15      |                             | 200.20g,in                         |                               | NPTA7082                  |   |          |                 | 301.     | Alpha. 4.10E-04 0CV3a   | Deta1        | 24E-04 UCV58                            |
| Ou      | THE EVENT AND               | 200.209,11                         | 200.209                       | 06/24/08,pd               |   |          |                 |          |                         |              |   |
| N       | J8F050164-1-SAMP            |                                    |                               | 06/01/01,r                | ************                            |          |                 |          |                         |              |   |
|         | 06/04/2008 09:30            | AmtRec: VIA                        | AL20,6XLP,3X4LP               | #Containers: 10           |   |          |                 | Scr:     | Alpha: 1.30E-03 uCi/Sa  | Beta: -1.    | 04E-03 uCi/\$a                          |
| ,       | 5 KPVM3-1-AA-B              | 200.10g,in                         | 200.10g                       | NPTA7083                  |   |          |                 |          |                         |              |   |
| N       | J8F120000-622-BLK           |                                    |                               | 06/24/08,pd               |   |          | 1               |          |                         |              |   |
|         | 05/27/2008 11:13            | AmtRec:                            | #Contai                       |                           |   |          |                 | Scr:     | Alpha:                  |              | Beta:                                   |
|         | 6 KPVM3-1-AC-C              | 200.00g,in                         | 200.00g                       | NPSE0469                  |   |          |                 |          |                         |              |   |
| 13      | J8F120000-622-LCS           |                                    |                               | 05/15/08,pd               |   |          |                 |          |                         |              |   |
|         |                             |                                    |                               | 06/01/01,r                | *************************************** |          |                 | 0        | Al-l-                   |              | B.4.                                    |
|         | 05/27/2008 11:13            | AmtRec:                            | #Contain                      | ners: 1                   |   |          |                 | Scr:     | Alpha:                  |              | Beta:                                   |
|         |                             |                                    |                               |                           |   |          |                 |          |                         |              |   |
|         |                             |                                    |                               |                           |   |          |                 |          |                         |              |   |
|         |                             |                                    |                               |                           |   |          |                 |          |                         |              |   |
|         |                             |                                    |                               |                           |   |          |                 |          |                         |              |   |
|         |                             |                                    |                               |                           |   |          |                 |          |                         |              | 10.0                                    |
|         |                             | ial Amt, fi - Final Amt, di - Dili |                               |                           | Page 1                                  | 1:       | SV - Insufficie | nt Volum | e for Analysis          |              | VO Cnt: 6<br>SamplePrep v4.8.           |

|  |                         |                            |                                |          | eparation/    |                    |                   |                | Balance Id:1                    | 120482733                |         |
|--|-------------------------|----------------------------|--------------------------------|----------|---------------|--------------------|-------------------|----------------|---------------------------------|--------------------------|---------|
| AnalyDueDate: 07/21/2008  Batch: 8164622  SEQ Batch, Test: None  |                         |                            | O Np-237 PrpR<br>W Neptunium-2 |          |               |                    |                   |                | Pipet #:                        |                          |         |
| AnalyDueDate: 07/21/2008   |                         |                            | 51 CLIENT: HAI                 |          |               |                    |                   | Se             | p1 DT/Tm Tech:                  |                          |         |
| Batch: 8164622   | pC                      | i/L                        |                                |          |               |                    |                   | Se             | p2 DT/Tm Tech:                  |                          |         |
| SEQ Batch, Test: None  |                         |                            |                                | 1120     |               |                    |                   | 1881           | Prep Tech:                      | ,HarrisD                 |         |
| Work Ord, Lot, Total Amt<br>Sample Date /Unit  | Total<br>Acidified/Unit | nitial Aliquot<br>Amt/Unit | Adj Aliq Amt<br>(Un-Acidified) | OC Trac  | cer Dish      | Ppt or<br>Geometry | Count<br>Time Min | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comment |
| All Clients for Batch:<br>384868, Pacific North  | rest National           | Saboratory                 | Pacific                        | Northwei | st National L |                    |                   |                |                                 |                          |         |
| KNIJTIAA-SAMP Constituent  | List:                   |                            |                                |          |               | ab, SS , 57        | 7671              |                |                                 |                          |         |
| Np-237 RDL:0.6   | List:<br>pCi/L          | LCL:                       | UCL:                           | RPD:     |               | ab, SS , 57        | 7671              |                |                                 |                          |         |
|  |                         | LCL:                       | UCL:                           | RPD:     |               | ab, SS , 57        | 7671              |                |                                 |                          |         |
| Np-237 RDL:0.6<br>KPVM31AA-BLK:<br>Np-237 RDL:0.6<br>KPVM31AC-LCS:<br>KN1JT1AA-SAMP Calc Info:<br>Uncert Level (#s)::                        | pCi/L                   | LCL:                       |                                | RPD:     | gi.Not.: Y    | ODRs: B            | 7671              |                |                                 |                          |         |
| Np-237 RDL:0.6  KPVM31AA-BLK: Np-237 RDL:0.6  KPVM31AC-LCS:  KN1JT1AA-SAMP Calc Info: Uncert Level (#s).:  KPVM31AA-BLK: Uncert Level (#s).: | pCi/L pCi/L Decay to    | LCL:                       | UCL:                           | RPD:     |               |                    | 7671              |                |                                 |                          |         |
| Np-237 RDL:0.6<br>KPVM31AA-BLK:<br>Np-237 RDL:0.6<br>KPVM31AC-LCS:<br>KN1JT1AA-SAMP Calc Info:<br>Uncert Level (#s).: 5<br>KPVM31AA-BLK:     | pCi/L pCi/L Decay to    | LCL: SaDt: Y SaDt: Y       | UCL:                           | RPD:     | ci.Not.: Y    | ODRs: B            | 7671              |                |                                 |                          |         |

6/27/2008 4:00:17 PM

## ICOC Fraction Transfer/Status Report ByDate: 6/28/2007, 7/2/2008, Batch: '8164622', User: 'ALL Order By DateTimeAccepting

| Q Batch Work Ord Cu | rStatus A  | ccepting        |                       | Comments              |
|---------------------|------------|-----------------|-----------------------|-----------------------|
| 8164622             |            |                 |                       |                       |
| AC Rev              | 1C HarrisD | 6/24/2008 3:44  | :56 PM                |                       |
| SC                  | wagarr     | IsBatchec:      | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC                  | HarrisD    | InPrep          | 6/24/2008 3:44:56 PM  | RL-PRP-004 REVISION 0 |
| SC                  | HarrisD    | Prep1C          | 6/24/2008 3:49:52 PM  | RL-PRP-004 REVISION 0 |
| SC                  | ManisD     | Sep2C           | 6/26/2008 5:34:54 PM  | RL-ALP-016 REV 0      |
| SC                  | DAWKINSO   | InCnt1          | 6/26/2008 6:33:31 PM  | RL-CI-008 REVISION 0  |
| SC                  | ClarkR     | CalcC           | 6/27/2008 12:17:36 PM | RL-CI-008 REVISION 0  |
| SC                  | whelands   | Rev1C           | 6/27/2008 4:00:10 PM  | RICH-RC-0002 REV 8    |
| AC .                | HarrisD    | 6/24/2008 3:49  | :52 PM                |                       |
| AC                  | ManisD     | 6/26/2008 5:34  | :54 PM                |                       |
| 4C                  | DAWKINSO   | 6/26/2008 € 33  | :31 PM                |                       |
| AC                  | ClarkR     | 6/27/2008 1.811 | 7:36                  |                       |
| AC .                | whelands   | 6/27/2008 4:00  | :10 PM                |                       |
|                     |            |                 |                       |                       |

AC: Accepting Entry; SC: Status Change

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Richland Wa.

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Grp Rec Cnt: 6 ICOCFractions v4.8.33

| 6/20/2008 3:52:31 PM  | Sample Pre  | eparation/An   | alysis      |          | Balance I               | d:1120482733       |               |
|---|---|----------------|-------------|----------|-------------------------|--------------------|---------------|
| 384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab  AnalyDueDate: 07/21/2008 (17)5(11)5 | AZ Gross Alpha PrpRC50<br>S7 Gross Alpha by GPC<br>51 CLIENT: HANFORD |                | irve        |          | Pipet Sep1 DT/Tm Tec    |                    |               |
| Batch: 8164615 WATER pCI/L  | PM,   | Quote: SS, 57  | 671         |          | Sep2 DT/Tm Tec          | h:                 |               |
| SEQ Batch, Test: None   |   |                |             |          |                         | th: ,HarrisD   Box | Je J          |
| Work Order, Lot, Total Initial Aliqu  | uot QC Tracer Dish  | Ppt or         | Count       | Detector | Count On Off            | CR Analyst,        | Comments      |
| Sample DateTime Amt/Unit Amt/Unit   |   |                | Time Min    | Id       | (24hr) Circle           | Init/Date          |               |
| 1 <b>KPEVW-1-AA</b> 142.90g,in<br>J8F050162-1-SAMP  | 1.5   | 34.4           | 100         | 110      | 1607                    | 6/264              |               |
|   | Rec: VIAL20,500MLP,LP #Containers:                                    | 3              |             | Scr:     | Alpha: 2.27E-04 uCi/Sa  | Beta: -4.          | 14E-06 uCi/Sa |
| 2 KPEVW-1-AE-X 142.70g,in<br>J8F050162-1-DUP  |   | 35·1           |             | 11A      | 1826                    | 6/26/080           | 70            |
|   | Rec: VIAL20,500MLP,LP #Containers:                                    |                |             | Scr:     | Alpha: 2.27E-04 uCi/Sa  | Beta: -4.          | 14E-06 uCi/Sa |
| 3 KPEX6-1-AA 166.80g,in   |   |                | 50          | 1.70     | 1(1)                    | U/zuko             |               |
| J8F050177-1-SAMP  |   | 33.8           |             | 104      | />//                    | / 0                |               |
|   | Rec: VIAL20,4XLP,3X4LP #Containers:                                   | : 8            | 20          | Scr:     | Alpha: -3.16E-04 uCi/Sa |                    | 59E-03 uCi/Sa |
| 4 KPVMT-1-AA-B 200.20g,in J8F120000-615-BLK   |   |                | 100         | 10F      | 1717                    | 6/26/08 0          | Ų             |
| 06/04/2008 13:19 Amt  | Rec: #Containers: 1   | 1.0            |             | Scr:     | Alpha:                  |                    | Beta:         |
| 5 KPVMT-1-AC-C 200.30g,in   | asd4496   |                |             | 10 E     |                         |                    |               |
| J8F120000-615-LCS   | 05/27/08,pd   | 1.0            |             |          | ď                       | V                  |               |
| 06/04/2008 13:19 Amti   |   |                |             | Scr:     | Alpha:                  |                    | Beta:         |
| Comments: At22.0 August   | reduced due   | to ut          | Serle       | uns 10   | H16/30/                 | 08                 |               |
| All Clients for Batch:  |   |                | -           |          |                         |                    |               |
| 384868, Pacific Northwest National Labora   | atory Pacific Northwes  | t National Lab | , ss , 5767 | 1        |                         |                    |               |
| KPEVW1AA-SAMP Constituent List:   |   |                |             |          |                         |                    |               |
| ALPHA RDL:3 pCi/L LCL:  | UCL: RPD:   |                |             |          |                         |                    |               |

| TEST   | 6/20/2008 3:52:32 PM   |
|--------|--|
| AMERIC | AnalyDueDate: 07/21/2008  Batch: 8164615 SEQ Batch, Test: None |

#### Sample Preparation/Analysis

Balance Id:1120482733

| AZ | Gross | Alpha | PrpRC5014    |   |
|----|-------|-------|--------------|---|
| 57 | Groce | Alpha | by GDC using | Δ |

Pipet #:

S7 Gross Alpha by GPC using Am-241 curve 51 CLIENT: HANFORD

Sep1 DT/Tm Tech:

pCi/L

Sep2 DT/Tm Tech:

|   |                   | Prep Tech: ,HarrisD |                             |                        |              |                    |                   |                |                                 |                          |           |
|---|-------------------|---------------------|-----------------------------|------------------------|--------------|--------------------|-------------------|----------------|---------------------------------|--------------------------|-----------|
| Work Order, Lot,<br>Sample DateTime                         | Total<br>Amt/Unit |                     | Initial Aliquot<br>Amt/Unit | QC Tracer<br>Prep Date | Dish<br>Size | Ppt or<br>Geometry | Count<br>Time Min | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comments: |
| KPVMT1AA-BLK:<br>ALPHA RDL:<br>KPVMT1AC-LCS:<br>Am-241 RDL: |                   | pCi/L               | LCL:                        | UCL:                   | RPD:         |                    |                   |                |                                 |                          |           |
| KPEVW1AA-SAMP Calc  | : Info:           |                     | o SaDt: Y                   | Blk Subt.:             |              | ot.: Y             | ODRs: B           |                |                                 |                          |           |
| KPVMT1AA-BLK:<br>Uncert Level<br>KPVMT1AC-LCS:              | (#s).: 2          | Decay t             | to SaDt: Y                  | Blk Subt.:             | N Sci.N      | ot.: Y             | ODRs: B           |                |                                 |                          |           |
| Uncert Level  | (#s).: 2          | Decay t             | o SaDt: Y                   | Blk Subt.:             | N Sci.N      | ot.; Y             | ODRs: B           |                |                                 |                          |           |

Approved By

TAL Richland Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

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ISV - Insufficient Volume for Analysis

WO Cnt: 5 Prep\_SamplePrep v4.8. 6/30/2008 9:09:23 AM

# ICOC Fraction Transfer/Status Report ByDate: 7/1/2007, 7/5/2008, Batch: '8164615', User: \*ALL Order By DateTimeAccepting

| Batch Work | Ord CurStat | us A      | ccepting       |                       | Comments              |
|------------|-------------|-----------|----------------|-----------------------|-----------------------|
| 3164615    | -           |           |                |                       |                       |
| 4C         | Rev1C       | HarrisD   | 6/20/2008 3:49 | :51 PM                |                       |
| SC         |             | wagarr    | IsBatched      | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC         |             | HarrisD   | InPrep         | 6/20/2008 3:49:51 PM  | RL-PRP-004 REVISION 0 |
| SC .       |             | HarrisD   | Prep1C         | 6/20/2008 3:52:33 PM  | RL-PRP-004 REVISION 0 |
| SC         |             | BookJ     | InPrep2        | 6/25/2008 7:18:12 AM  | RL-GPC-001 REVISION 0 |
| SC .       |             | BookJ     | Prep2C         | 6/26/2008 2:08:18 PM  | RL-GPC-001 REVISION 0 |
| SC .       |             | BlackCL   | InCnt1         | 6/26/2008 2:12:26 PM  | RL-CI-006 REVISION 0  |
| SC .       |             | DAWKINSO  | CalcC          | 6/26/2008 11:00:08 PM | RL-CI-006 REVISION 0  |
| C          |             | antonsonl | Rev1C          | 6/30/2008 9:09:13 AM  | RICH-RC-0002 REV 8    |
| C          |             | HarrisD   | 6/20/2008 3:52 | :33 PM                |                       |
| C          |             | BockJ     | 6/25/2008 7:18 | :12                   |                       |
| 9          |             | BockJ     | 6/26/2008 2:08 | :18 PM                |                       |
| AC .       |             | BlackCL   | 6/26/2008 2:12 | :26 PM                |                       |
| AC .       |             | DAWKINSO  | 6/26/2008 11:0 | 0:08                  |                       |
| C          |             | antonsonl | 6/30/2008 9:09 | :13                   |                       |
|            |             |           |                |                       |                       |

AC: Accepting Entry, SC: Status Change

TAL Richland Richland Wa.

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Grp Rec Cnt: 7 ICOCFractions v4.8.33

| 5/20/2008 3:48:49 PM  | Sample Prep   | paration/An         | alysis         |                   | Balance I                      | d:1120482733              |  |  |  |
|---|---|---------------------|----------------|-------------------|--------------------------------|---------------------------|--|--|--|
| 884868, Pacific Northwest National Laboratory ,<br>Pacific Northwest National Lab                                       | BC Gross Beta PrpRC5014<br>S8 Gross Beta by GPC usi |                     | 10             |                   | Pipet #: 04 5 Sep1 DT/Tm Tech: |                           |  |  |  |
| analyDueDate: 07/21/2008   \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \  | 51 CLIENT: HANFORD                                  | ing on 1-30 cur     |                |                   |                                |                           |  |  |  |
| Batch: 8164616 WATER pCi/L  | PM, C   | Quote: SS , 57      | Sep2 DT/Tm Tec | h:                |                                |                           |  |  |  |
| SEQ Batch, Test: None   |   |                     |                |                   | Prep Ted                       | th: ,HarrisD Bock         |  |  |  |
| Work Order, Lot, Total Initial Aliquot  | QC Tracer Dish                                      | Ppt or              | Count          | Detector          | Count On   Off                 | CR Analyst, Comm          |  |  |  |
| Sample DateTime Amt/Unit Amt/Unit   | Prep Date Size                                      | Geometry            | Time Min       | ld                | (24hr) Circle                  | Init/Date                 |  |  |  |
| KPEVW-1-AC 200.10g,in   | 1.5   |                     | 100            | 27B               | 195,8                          | 6/26/0800                 |  |  |  |
| F050162-1-SAMP  |   | 107.9               | 1 - 0          | 210               |                                |                           |  |  |  |
| 6/04/2008 13:19 AmtRec: \   | /IAL20,500MLP,LP #Containers: 3                     |                     |                | Scr:              | Alpha: 2.27E-04 uCi/Sa         | Beta: 4.14E-06 uCi/Sa     |  |  |  |
| <b>KPEX6-1-AC</b> 200.30g,in  |   |                     |                | 270               |                                |                           |  |  |  |
| BF050177-1-SAMP   |   | (66.4               |                |                   |                                |                           |  |  |  |
|   | /IAL20,4XLP,3X4LP #Containers: 8                    |                     |                | Scr:              | Alpha: -3.16E 04 uCi/Sa        | Beta: 4.59E-03 uCi/Sa     |  |  |  |
| KPEX6-1-AG-X 200.20g,in   |   |                     |                | 926/38gc          | -                              |                           |  |  |  |
| 8F050177-1-DUP  | *****   | 65.5                |                | 31A               |                                |                           |  |  |  |
| 6/04/2008 11:17 AmtRec: \   | /IAL20,4XLP,3X4LP #Containers: 8                    | ******************* |                | Scr:              | Alpha: -3.16#-04 uCi/Sa        | Beta: 4.59E-03 uCi/Sa     |  |  |  |
| KPVMV-1-AA-B 200.20g,in   |   |                     |                | 318               |                                |                           |  |  |  |
| 8F120000-616-BLK  |   | 0.3                 |                | 313               |                                |                           |  |  |  |
|   | #Containers: 1                                      |                     |                | Scr:              | Alpha:                         | Beta:                     |  |  |  |
| KPVMV-1-AC-C 200.30g,in   | besb3263  |                     |                | 31D               | 6                              | b                         |  |  |  |
| 8F120000-616-LCS  | 05/27/08,pd   | 05                  |                | JIP               |                                | <i>y</i>                  |  |  |  |
| 06/04/2008 11:17 AmtRec:  | #Containers: 1                                      |                     |                | Scr:              | Alpha:                         | Beta:                     |  |  |  |
| comments: pt220 Ottle/2   | gas.  |                     |                |                   |                                |                           |  |  |  |
| 11 Clients for Batch: 384868, Pacific Northwest National Laborator PEVWIAC-SAMP Constituent List: BETA RDI:4 PCi/L LCL: | ry Pacific Northwest                                | National Lab        | SS , 57671     |                   |                                |                           |  |  |  |
| TAL Richland Key: In - Initial Amt, fi - Final Amt, di - D  |   | Page 1              | ISV -          | Insufficient Volu | ume for Analysis               | WO Cnt: 5 Prep_SamplePrep |  |  |  |

| 6/20/2008 3:48:50 PM  AnalyDueDate: 07/21/2008   |                                | BC Gross Beta Prp      | GPC using Sr/Y-90 o      |                     | e ld:1120482733<br>pet #: |                                 |                          |           |
|--|--------------------------------|------------------------|--------------------------|---------------------|---------------------------|---------------------------------|--------------------------|-----------|
| Batch: 8164616<br>SEQ Batch, Test: None  | pCi/L                          |                        |                          |                     | 11 <b>030 0</b> 111 10    | Sep2 DT/Tm T                    | ech:<br>fech: ,HarrisD   |           |
| Work Order, Lot, Sample DateTime Total   | Initial Aliquot<br>it Amt/Unit | QC Tracer<br>Prep Date | Dish Ppt or Size Geometr | Count<br>y Time Min | Detector<br>Id            | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comments: |
| KPVMV1AA-BLK: BETA RDL:4 KPVMV1AC-LCS: Sr-90 RDL:  | pCi/L LCL:<br>pCi/L LCL:70     | UCL: RP                | D:<br>D:20               |                     |                           |                                 |                          |           |
| KPEVWIAC-SAMP Calc Info:<br>Uncert Level (#s).: 2<br>KPVMVIAA-BLK:<br>Uncert Level (#s).: 2<br>KPVMVIAC-LCS: | Decay to SaDt: Y               | Blk Subt.: N           | Sci.Not.: Y              | ODRs: B             |                           |                                 |                          |           |
| Uncert Level (#s).: 2  | Decay to SaDt: Y               | Blk Subt.: N           | Sci.Not.: Y              | ODRs: B             |                           |                                 |                          |           |

Approved By

TAL Richland

Richland Wa.

Date:

# ICOC Fraction Transfer/Status Report ByDate: 7/1/2007, 7/5/2008, Batch: '8164616', User: \*ALL Order By DateTimeAccepting

| Batch Work | Ord CurStat | us A             | ccepting       |                       | Comments              |
|------------|-------------|------------------|----------------|-----------------------|-----------------------|
| 3164616    | -           |                  |                |                       |                       |
| AC         | Rev1C       | HarrisD          | 6/20/2008 3:45 | :50 PM                |                       |
| SC         |             | wagarr           | IsBatched      | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC         |             | HarrisD          | InPrep         | 6/20/2008 3:45:50 PM  | RL-PRP-004 REVISION 0 |
| SC .       |             | HarrisD          | Prep1C         | 6/20/2008 3:48:51 PM  | RL-PRP-004 REVISION 0 |
| SC         |             | BockJ            | InPrep2        | 6/25/2008 7:18:05 AM  | RL-GPC-001 REVISION 0 |
| SC .       |             | BockJ            | Prep2C         | 6/26/2008 2:09:05 PM  | RL-GPC-001 REVISION 0 |
| SC         |             | BlackCL          | InCnt1         | 6/26/2008 2:12:52 PM  | RL-CI-006 REVISION 0  |
| SC         |             | <b>DA'WKINSO</b> | CalcC          | 6/26/2008 11:00:31 PM | RL-CI-006 REVISION 0  |
| SC .       |             | antonsonl        | Rev1C          | 6/30/2008 9:07:29 AM  | RICH-RC-0002 REV 8    |
| IC         |             | HarrisD          | 6/20/2008 3:48 | :51 PM                |                       |
| AC .       |             | BookJ            | 6/25/2008 7:18 | :05                   |                       |
| AC         |             | BockJ            | 6/26/2008 2:09 | :05 PM                |                       |
| AC         |             | BlackCL          | 6/26/2008 2:12 | :52 PM                |                       |
| AC .       |             | DAWKINSO         | 6/26/2008 11:0 | 0:31                  |                       |
| 4C         |             | antonsoni        | 6/30/2008 9:07 | :29                   |                       |

.C. Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

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Grp Rec Cnt:7 ICOCFractions v4.8.33

| 719/2008 7:52:28 AM<br>84868, Pacific Northwest National Laborate<br>acific Northwest National Lab<br>nalyDueDate: 07/21/2008 | ory , CL Sr-90 Prp   | ample Prep<br>//SepRC5006(5<br>Nat and Sr-90 I<br>HANFORD | 071)         | Pipet #: DRY SSEP1 DT/Tm Tech: 023 08 15:51:0 |                   |                 |                                 |  |   |
|---|--|---|--------------|---|-------------------|-----------------|---------------------------------|--|---|
| atch: 8164619 WATER P<br>EQ Batch, Test: None   | oCi/L  | PM, C   |              | SS , 57671                                    | #11#4 11#11       |                 | Sep2 DT/Tm Teci                 | h: <del>636</del> 0<br>h: ,WoodT <sup>7-1-00</sup> | 8 101.                                  |
|   | d Aliquot QC Tracer<br>nt/Unit Prep Date   | Tracer<br>Yield   | Dish<br>Size | Ppt or<br>Geometry                            | Count<br>Time Min | Detector<br>Id  | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date                           | Comment                                 |
| BF050177-1-SAMP   | 0.08g,in SRTB16237 \ 0.08g,in 05/21/08,pd \ 0.05/21/08,pd \ 0.05/21/08,pd  |   | 15           | 021,8   | 100               | 9"              | اكان                            | 6/23/0807  | 0                                       |
|   |  |   | 1            |   |                   | SA              | d34                             | 7/1/00   |   |
| YTA18954<br>Ex:4/29/2009  | 1000 B   | 10.98   | 16           |   |                   | 5/2             |                                 | 7/3/084  |   |
| 6/04/2008 11:17   | AmtRec: VIAL20,4XLP,3X4LP  | #Containers: 8  |              |   |                   |                 | Alpha: -3.16E-04 uCi/Sa         | Beta: 4.59   | 9E-03 uCi/Sa                            |
| BF050177-1-DUP  | 0.20g,in SRTB16238<br>05/21/08,pd<br>05/22/07 r  |   |              | 021.8   |                   | 311<br>5B<br>5B | 1651                            | 6/23/08th  | 0                                       |
|   |  |   |              |   |                   | 53              | 0.39                            | 7/3/2  | *************************************** |
| VAXIBESHI   | 1.097  | <u>D</u>  |              |   |                   |                 |                                 |  |   |
| 6/04/2008 11:17   | AmtRec: VIAL20,4XLP,3X4LP  | #Containers: 8  |              |   |                   | Scr:            | Alpha: -3.16E-04 uCi/Sa         | Beta: 4.59   | 9E-03 uCi/Sa                            |
| KPVM0-1-AA-B 1000<br>BF120000-619-BLK   | 05/21/08,pd 2  | 1-968 - 98  | 15           | 022.5   | _                 | 9"              | 1136                            | 1/2/2 =  |   |
|   | 9-7-10-8   | m.f. 9  | 9            | <u> </u>                                      |                   | SC              | Mag                             | 7/3/675  |   |
| YTA18958 *** Ex:4/29/2009 *** 16/04/2008 11:17  | AmtRec: #Con   | tainers: 1  | 9            |   |                   | Scr:            | Alpha:                          |  | Beta:                                   |
| KPVM0-1-AC-C 1000   | 0.02g,in SRSG1486  |   |              |   |                   | 34              | 1737                            | 6/23/080   | b                                       |
| 8F120000-619-LCS  | 06/18/08,pd  | #11    #11    #1  |              | 023.4   | <u>'</u>          | SD              | Ch36                            | 7/2/08   | 0                                       |
|   | <b>. 11.8   11. 19.</b> 11.   1. 1 <b>9.1</b> 1.   18.11.   1. 19.11.   18.11.   19.11. | ALEHINI BA  | 1            | /   |                   | SD              | (1005                           | 1/3/3  |   |
| YTA18957  | 0  | 9483  | V            |   |                   |                 |                                 | ***************************************            |   |
| Ex:4/29/2009<br>06/04/2008 11:17  | AmtRec: #Con   | tainers: 1  |              |   | 1                 | Scr:            | Alpha:                          |  | Beta:                                   |

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Richland Wa.

Prep\_SamplePrep v4.8

| 년 6/19/2008 7:52:29 AM                  | Sample Preparation/Analysis  | Balance Id:1120373922 |
|---|--|-----------------------|
| ESTAV                                   | CL Sr-90 Prp/SepRC5006(5071) TL Sr-85 by Nal and Sr-90 by GPC 7 day ingrowth | Pipet #:              |
| AnalyDueDate: 07/21/2008 Batch: 8164619 | 51 CLIENT: HANFORD   | Sep1 DT/Tm Tech:      |
| Batch: 8164619                          | pCi/L  | Sep2 DT/Tm Tech:      |

QC Tracer

Prep Date

Sep2 DT/Tm Tech:

Batch: 8164619 SEQ Batch, Test: N SEQ Batch, Test: None

Work Order, Lot,

Sample DateTime

Prep Tech: ,WoodT Tracer Dish Ppt or Count Detector Count On | Off CR Analyst, Comments: Init/Date Yield Size Geometry Time Min ld (24hr) Circle

pH < 2.0 6/19/08 280V Comments:

Total

Amt/Unit

Initial Aliquot

Amt/Unit

| All Clients<br>384868, |         |          | hwest  | National | Laboratory | Pacific    | Northw | est Natio | nal La | b, ss  | , 57671 |       |        |         |         |
|------------------------|---------|----------|--------|----------|------------|------------|--------|-----------|--------|--------|---------|-------|--------|---------|---------|
| KPEX61AF-SAI           | MP Cons | tituen   | t List | t:       |            |            |        |           |        | -      |         |       |        |         |         |
| Sr-85                  | RDL:    |          |        | pCi/L    | LCL:20     | UCL:105    | RPD:2  | 0         | Sr-90  |        | RDL:2   | pCi/L | LCL:70 | UCL:130 | RPD:20  |
| KPVM01AA-BL            | K:      |          |        |          |            |            |        |           |        |        |         |       |        |         |         |
| Sr-85                  | RDL:    |          |        | pCi/L    | LCL:20     | UCL:105    | RPD:2  | 0         | Sr-90  |        | RDL:2   | pCi/L | LCL:   | UCL:    | RPD:    |
| CPVM01AC-LC            | S:      |          |        |          |            |            |        |           |        |        |         |       |        |         |         |
| Sr-85                  | RDL:    |          |        | pCi/L    | LCL:20     | UCL:105    | RPD:2  | 0         | Sr-90  |        | RDL:2   | pCi/L | LCL:70 | UCL:130 | RPD: 20 |
| PEX61AF-SA             | MP Calc | Info     |        |          |            |            |        |           |        |        |         |       |        |         |         |
|                        | Level   |          |        | Decay t  | o SaDt: Y  | Blk Subt.: | N      | Sci.Not.  | Y      | ODRs:  | В       |       |        |         |         |
| PVM01AA-BL             | K:      |          |        |          |            |            |        |           |        |        |         |       |        |         |         |
| Uncert                 | Level   | (#s).:   | 2      | Decay t  | o SaDt: Y  | Blk Subt.: | N      | Sci.Not.  | Y      | ODRs:  | В       |       |        |         |         |
| PVM01AC-LC             | S:      |          |        |          |            |            |        |           |        |        |         |       |        |         |         |
| Uncert                 | Level   | (#s) . : | 2      | Decay t  | o SaDt: Y  | Blk Subt.: | N      | Sci.Not.  | Y      | ODRs:  | В       |       |        |         |         |
|                        |         |          |        |          |            |            |        |           |        |        |         |       |        |         |         |
|                        |         |          |        |          |            |            |        |           | Appro  | ved By |         |       |        | Date:   |         |

Page 2

7/10/2008 10:09:46 AM

# ICOC Fraction Transfer/Status Report ByDate: 7/11/2007, 7/15/2008, Batch: '8164619', User: \*ALL Order By DateTimeAccepting

| Batch Wo | rk Ord CurStat | us A      | ccepting        |                       | Comments                |
|----------|----------------|-----------|-----------------|-----------------------|-------------------------|
| 3164619  |                |           |                 |                       |                         |
| C        | Rev1C          | WoodT     | 6/19/2008 7:42  | :08                   |                         |
| SC .     |                | wagarr    | IsBatched       | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32    |
| C        |                | WoodT     | InPrep          | 6/19/2008 7:42:08 AM  | RICH-RC-5016 Revision 7 |
|          |                | WoodT     | Prep1C          | 6/19/2008 7:52:54 AM  | RICH-RC-5016 REVISION 7 |
| C        |                | ManisD    | InSep1          | 6/20/2008 9:42:22 AM  | RL-GPC-003 REV 0        |
|          |                | DAWKINSO  | InCnt1          | 6/23/2008 4:24:16 PM  | RL-CI-007 REVISION 0    |
| 7        |                | DAWKINSO  | Cnt1C           | 6/23/2008 8:07:32 PM  | RL-CI-007 REVISION 0    |
|          |                | ManisD    | InSep2          | 6/24/2008 11:05:26 AM | RL-GPC-004 REV 0        |
|          |                | McDowellD | Sep1C           | 7/1/2008 3:49:31 PM   | RL-GPC-004 REV 0        |
|          |                | DAWKINSO  | InCnt2          | 7/1/2008 4:27:57 PM   | RL-CI-006 REVISION 0    |
| ;        |                | BlackCL   | CalcC           | 7/3/2008 7:09:34 AM   | RL-CI-006 REVISION 0    |
|          |                | nortonj   | Rev1C           | 7/10/2008 10:09:41 AM | RICH-RC-0002 REV 8      |
|          |                | WoodT     | 6/19/2008 7:52  | 54                    |                         |
|          |                | ManisD    | 6/20/2008 9:42: | 22                    |                         |
|          |                | DAWKINSO  | 6/23/2008 4:24: | 16 PM                 |                         |
| 7        |                | DAWKINSO  | 6/23/2008 8:07: | 32 PM                 |                         |
|          |                | ManisD    | 6/24/2008 11:09 | 5:26                  |                         |
|          |                | McDowellD | 7/1/2008 3:49:3 | 1 PM                  |                         |
| 0        |                | DAWKINSO  | 7/1/2008 4:27:5 | 7 PM                  |                         |
|          |                | BlackCL   | 7/3/2008 7:09:3 | 4 AM                  |                         |
|          |                | nortonj   | 7/10/2008 10:09 | 9:41                  |                         |
|          |                |           |                 |                       |                         |

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Page 1

Grp Rec Cnt: 10 ICOCFractions v4.8.33

| 6/18/2008 8:07:59 AM  | Sample Pr                              | reparation/A     | nalysis           |                     | Balance                         | ld:1120373922            |                  |
|---|--|------------------|-------------------|---------------------|---------------------------------|--------------------------|------------------|
| 384868, Pacific Northwest National Laboratory ,<br>Pacific Northwest National Lab | AW Gamma PrpRC5017<br>TA Gamma by HPGE |                  |                   |                     |                                 | et #:                    |                  |
| AnalyDueDate: 07/21/2008  | 51 CLIENT: HANFORD                     |                  |                   |                     | Sep1 DT/Tm T                    | ech:                     |                  |
| Batch: 8164617 WATER pCi/L<br>SEQ Batch, Test: None All Tests: 8164617 AWTA, 810  | PM<br>64618 BNTB, 8164621 CYTM, 81     | M, Quote: SS , 5 |                   | 64624 5SS3,         | Sep2 DT/Tm T                    |                          |                  |
|   |  |                  | IN RUBIN RUIN     |                     | Prep I                          | ech: WoodT   Bo.         | 1 × 7            |
| Work Order, Lot, Total Initial Aliq Sample DateTime Amt/Unit Amt/Uni              | uot QC Tracer Dis<br>t Prep Date Size  |                  | Count<br>Time Min | Detector Id         | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comment          |
| 1.KN1JT-1-AD 2000.01g,in  |  | Domes            | TO B              | 1908 65             | 1100                            | 6/20/08                  |                  |
| J8E280299-1-SAMP<br>  | lec: 20ML,6XLP,3X4LP #Containers       | s: 10            | 300               | Scr:                | Alpha: -1.54E-03 uCi/           | Sa Beta:                 | 2.66E-03 uCi/Sa  |
| 2 KN1JX-1-AD 2000.09g,in  |  |                  |                   | 65                  |                                 |                          |                  |
| J8E280299-2-SAMP<br>  |  |                  |                   |                     |                                 |                          |                  |
| 05/27/2008 11:13 AmtF<br>KPEV3-1-AD 1951.01g,in                                   | Rec: 20ML,6XLP,3X4LP #Containers       | s: 10            |                   | Scr:                | Alpha: 4.10E-04 uCi/s           | Sa Beta:                 | -1.24E-04 uCi/Sa |
| J8F050164-1-SAMP<br>  |  |                  |                   | 611                 | // 5                            |                          |                  |
| 06/04/2008 09:30 AmtF   | Rec: VIAL20,6XLP,3X4LP #Container      | rs: 10           |                   | Scr:                | Alpha: 1.30E-03 uCi/            | Sa Beta:                 | -1.04E-03 uCl/Sa |
| 4 KPEV3-1-AH-X 1949.67g,in  |  |                  |                   | 6"                  | Y INY                           |                          |                  |
| ## 1  | Rec: VIAL20,6XLP,3X4LP #Container      | rs: 10           |                   | Scr:                | Alpha: 1.30E-03 uCi/5           | Sa Beta:                 | -1.04E-03 uCi/Sa |
| 5-KPEX6-1-AD 2000.86g,in  | 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |                  |                   | 6                   | 7 1104                          |                          |                  |
| J8F050177-1-SAMP  |  | 9                |                   | Scr:                |                                 | Co Poto                  | 4 FOF 02C:/C-    |
| 06/04/2008 11:17 Amt<br>KPVMW-1-AA-B 2000.01g,in                                  | Rec: VIAL20,4XLP,3X4LP #Container      | 15. 0            |                   | Sci.                | Alpha: -3.16E-04 uCi/           | Sa Deta.                 | 4.59E-03 uCi/Sa  |
| J8F120000-617-BLK   |  |                  |                   | 6                   | 10 1104                         |                          |                  |
|   | Rec: #Containers: 1                    |                  |                   | Scr:                | Alpha:                          |                          | Beta:            |
| <b>ZKPVMW-1-AC-C</b> 2000.71g,in  | QCAG1483<br>04/23/08,pd                |                  |                   | 1-                  | 6 1105                          |                          |                  |
| J8F120000-617-LCS   | E                                      |                  |                   | Scr:                | Alpha:                          | J                        | Beta:            |
| TAL Richland Key: In - Initial Amt, fi - Final Amt, c                             |  |                  | ISV               | - Insufficient Volu |                                 |                          | WO Cnt: 7        |

MEN

| AnalyDueDate: 07/21/2008  Batch: 8164617  SEQ Batch, Test: None | T.                          | Samp<br>V Gamma PrpRG<br>A Gamma by HP<br>SI CLIENT: HANI | C5017<br>PGE | aration/An         | alysis                          |                |                                 | e ld:1120373922<br>et #:ech: |          |
|---|-----------------------------|---|--------------|--------------------|---------------------------------|----------------|---------------------------------|------------------------------|----------|
| Batch: 8164617<br>SEQ Batch, Test: None                         | pCI/L                       |   | 111111111    |                    | (1 <b>1 1 1 1 1 1</b> 1 1 1 1 1 |                | Sep2 DT/Tm T                    | ech:<br>ech: ,WoodT          |          |
| Work Order, Lot, Sample DateTime Total Amt/Unit                 | Initial Aliquot<br>Amt/Unit | QC Tracer<br>Prep Date                                    | Dish<br>Size | Ppt or<br>Geometry | Count<br>Time Min               | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date     | Comments |

KN1JT1AD-SAMP Constituent List: RDL:0.00E+00 pCi/L LCL: UCL: RPD: Cs-134 RDL: 0.00E+00 pCi/L LCL: UCL: RPD: Co-60 Cs-137DA RDL: 6.00E+00 pCi/L LCL:70 UCL: 130 RPD:20 RDL:6.00E+00 pCi/L LCL:70 UCL:130 RPD: 20 Cs-137 UCL: RPD: Eu-155 RDL: . 00E+00 pCi/L LCL: UCL: RPD: RDL:0.00E+00 LCL: Eu-154 pCi/L RDL: 0.00E+00 pCi/L LCL: UCL: RPD: K-40 RDL: 0.00E+00 pCi/L LCL: UCL: RPD: Sb-125 KPVMW1AA-BLK: Cs-134 RDL:0.00E+00 pCi/L LCL: UCL: RPD: pCi/L LCL: UCL: RPD: Co-60 RDL:0.00E+00 UCL: RPD: Cs-137DA RDL:6.00E+00 pCi/L LCL: UCL RPD: Cs-137 RDL: 6.00E+00 pCi/L LCL: RDL: . 00E+00 pCi/L UCL: RDL: 0.00E+00 pCi/L LCL: UCL: RPD: Eu-155 LCL: RPD: Eu-154 RPD: Sb-125 RDL: 0.00E+00 pCi/L LCL: UCL: RPD: RDL:0.00E+00 LCL: UCL: K-40 pCi/L PVMW1AC-LCS: Cs-137DA RDL:15 pCi/L LCL:70 UCL: 130 RPD: 20 UCL:130 RPD:20 Cs-137 RDL: 15 pCi/L LCL:70 UCL:130 RPD:20 Ra-226 RDL: -pCi/L LCL:70 UCL:130 RPD:20 K-40 RDL:6 pCi/L LCL:70 LCL:70 UCL:130 RPD:20 RA-228DA RDL: -pCi/L LCL:70 UCL:130 RPD: 20 RA-228 RDL: -pCi/L UCL:130 RPD:20 LCL:70 U-238 RDL: -pCi/L KN1JT1AD-SAMP Calc Info: Uncert Level (#s) .: 2 Decay to SaDt: Y Blk Subt .: N Sci.Not.: Y ODRs: B KPVMW1AA-BLK: Blk Subt.: N Sci.Not.: Y ODRs: B Decay to SaDt: Y Uncert Level (#s) .: 2 KPVMW1AC-LCS: Blk Subt .: N Sci.Not.: Y ODRs: B Uncert Level (#s) .: 2 Decay to SaDt: Y

Page 2

Approved By \_\_\_\_\_ Date:

TAL Richland Richland Wa. 6/30/2008 9:05:38 AM

# ICOC Fraction Transfer/Status Report ByDate: 7/1/2007, 7/5/2008, Batch: '8164617', User: \*ALL Order By DateTimeAccepting

| Batch Work | Ord CurStat | us        | Accepting      |                       | Comments                |
|------------|-------------|-----------|----------------|-----------------------|-------------------------|
| 8164617    |             |           |                |                       |                         |
| 4C         | Rev1C       | WoodT     | 6/18/2008 7:44 | :35                   |                         |
| SC         |             | wagarr    | IsBatched      | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32    |
| SC .       |             | WoodT     | InPrep         | 6/18/2008 7:44:35 AM  | RICH RC 5017 REVISION 6 |
| SC         |             | TbcoW     | Prep1C         | 6/18/2008 8:03:30 AM  | RICH RC 5017 REVISION 6 |
| SC         |             | BockJ     | InPrep2        | 6/18/2008 10:09:05 AM | RICH-RC-5017 REVISION 6 |
| SC         |             | BlackCL   | InCnt1         | 6/20/2008 7:01:54 AM  | RL-CI-007 REVISION 0    |
| SC         |             | BockJ     | Prep2C         | 6/20/2008 9:53:26 AM  | RL-GAM-001 REVISION 0   |
| SC         |             | ClarkR    | CalcC          | 6/20/2008 12:19:48 PM | RL-CI-007 REVISION 0    |
| SC .       |             | antonsonl | Rev1C          | 6/30/2008 9:05:06 AM  | RICH-RC-0002 REV 8      |
| IC         |             | WoodT     | 6/18/2008 8:03 | :30                   |                         |
| AC .       |             | BockJ     | 6/18/2008 10:0 | 9:05                  |                         |
| AC         |             | BlackCL   | 6/20/2008 7:01 | :54                   |                         |
| 4 <i>C</i> |             | BockJ     | 6/20/2008 9:53 | :26                   |                         |
| 4 <i>C</i> |             | ClarkR    | 6/20/2008 12:1 | 9:48                  |                         |
| 4 <i>C</i> |             | antonsonl | 6/30/2008 9:05 | :06                   |                         |

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa.

Page 1

Grp Rec Cnt:7
ICOCFractions v4.8.33

| 6/24/2008 1:43:36 PM   | Sample Preparation/Ana  | llysis Balance ld:1120482733  |
|--|---|---|
| 384868, Pacific Northwest National Laboratory , Pacific Northwest National Lab   | BN I-129 Prp/SepRC5025<br>TB Gamma by LEPD                                  | Pipet #:  |
| AnalyDueDate: 07/21/2008 (1)   | 5I CLIENT: HANFORD  | Sep1 DT/Tm Tech:  |
| Batch: 8164618 WATER pCi/L SEQ Batch, Test: None   | PM, Quote: SS, 576  | 71 Sep2 DT/Tm Tech:   |
| SEQ Batch, Test: None  | 1 (0 8 (8) 1 8 (8) 4 (8) 5 (8) 6 (8)  | Prep Tech: ,HarrisD   |
| Work Order, Lot, Sample DateTime Amt/Unit Initial Aliquot  | QC Tracer Dish Ppt or Prep Date Size Geometry                               | Count Detector Count On Off CR Analyst, Comment Time Min Id (24hr) Circle Init/Date |
| KNTWQ-1-AA 3864.50g,in  J8E230328-1-SAMP   | 1TA7354<br>06/16/08 36.8  | 100 64 807 \$139 00   |
|  |   | Scr: Alpha: -4.01E-04 uCi/Sa Beta: -2.32E-04 uCi/Sa                                 |
| <b>2 KNTWQ-1-AC-X</b> 3863.70g,in  | 1TA7355<br>06/16/08 35.2  | L5 1807   |
| J8E230328-1-DUP  | //AL20,2X4LP #Containers: 3   | Scr: Alpha: -4.01E-04 uCi/Sa Beta: -2.32E-04 uCi/Sa                                 |
| KNTW6-1-AA 3852.60g,in   | ITA7356<br>06/16/08 39.1  | 10  |
| J8E230328-2-SAMP   |   | Scr: Alpha: -1.13E-03 uCi/Sa Beta: 5.63E-04 uCi/Sa                                  |
| 05/20/2008 12:50 AmtRec: \ | ITA7357   | 1/4/0 8000  |
| J8E280293-1-SAMP   | 06/16/08 33.8   | L2 1956 121   |
| 05/27/2008 14:01 AmtRec: 2   | 20ML2X4LP #Containers: 3  | Scr: Alpha: -5.16E-04 uCi/Sa Beta: 5.63E-04 uCi/Sa                                  |
| <b>5 KN1HP-1-AA</b> 3756.80g,in  J8E280295-1-SAMP  | 1TA7358<br>08/16/08 34.0  | L4 1958   |
|  | 20ML2X4LP #Containers: 3  | Scr: Alpha: -7.38E-05 uCi/Sa Beta: 1.45E-03 uCi/Sa                                  |
| 6 KN1HQ-1-AA 3784.30g,in   | ITA7359<br>06/16/08 34.5  | 1 5 1958  |
| J8E280295-2-SAMP   |   | San Albert 5 045 04 (200)   |
| 05/27/2008 12:10 AmtRec: 2  KN1JT-1-AE 3857.90g,in   | 20ML2X4LP #Containers: 3<br>ITA7361<br>06/16/08 33, 8                       | Scr: Alpha: -5.24E-04 uCi/Sa   Beta: 1.71E-03 uCi/Sa                                |
| J8E280299-1-SAMP   | 06/16/08  | LA ZITT h   |
|  | 20ML,6XLP,3X4LP #Containers: 10   | Scr: Alpha: -1.54E-03 uCi/Sa Beta: 2.66E-03 uCi/Sa                                  |
|  |   |   |
| TAL Richland Key: In - Initial Amt, fi - Final Amt, di - Di<br>Richland Wa. pd - Prep Dt, r - Reference Dt, ec-En  | Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 richment Cell, ct-Cocktailed Added | ISV - Insufficient Volume for Analysis WO Cnt: 7 Prep_SamplePrep_v4                 |

| 6/24/2008 1:43:37 PM  | Sample Preparation/Ana                        | lysis Balance Id:1120482733  |
|---|---|--|
| 384868, Pacific Northwest National Laboratory ,<br>Pacific Northwest National Lab | BN I-129 Prp/SepRC5025<br>TB Gamma by LEPD    | Pipet #:   |
| AnalyDueDate: 07/21/2008  | 5I CLIENT: HANFORD                            | Sep1 DT/Tm Tech:   |
| Batch: 8164618 WATER pCi/L<br>SEQ Batch, Test: None                               | PM, Quote: SS, 576                            | 71 Sep2 DT/Tm Tech:  |
|   | 11000010001000                                | Prep Tech: ,HarrisD  |
| Work Order, Lot, Total Initial Aliq Sample DateTime Amt/Unit Amt/Unit             |   | Count Detector Count On Off CR Analyst, Commen Time Min Id (24hr) Circle Init/Date |
| 8 KN1JX-1-AE 3884.60g,in<br>J8E280299-2-SAMP                                      | 1TA7360<br>06/16/08 34.7                      | 100 L4 2143 76/08 00   |
|   | Rec: 20ML,6XLP,3X4LP #Containers: 10          | Scr: Alpha: 4.10E-04 uCi/Sa Beta: -1.24E-04 uCi/Sa                                 |
| <b>8 KN1KG-1-AA</b> 3881.80g,in<br>J8E280299-3-SAMP                               | ITA7362<br>06/16/08 34.0                      | L5 J   |
|   | Rec: 20ML,4LP #Containers: 3                  | Scr: Alpha: -3.04E-04 uCi/Sa Beta: -4.97E-04 uCi/Sa                                |
| 19 KN1KP-1-AA 3892.70g,in<br>J8E280299-4-SAMP                                     | 1TA7363<br>06/16/08 33.7                      | L2 2336  |
|   | Rec: 20ML,4LP #Containers: 3                  | Scr: Alpha: -1.20E-03 uCi/Sa Beta: 1.80E-03 uCi/Sa                                 |
| 11 KN1KX-1-AA 3881.60g,in<br>J8E280299-5-SAMP                                     | ITA7364<br>06/16/08 35. L                     | L4 7338  |
|   | Rec: 20ML,4LP #Containers: 3                  | Scr: Alpha: -4.36E-04 uCi/Sa Beta: 8.28E-04 uCi/Sa                                 |
| 12 KPA60-1-AA 3901.00g,in   | ITA7365<br>06/16/08 35. 4                     | 15   |
| J8F040162-1-SAMP<br>  | Rec: VIAL20,2X4LP #Containers: 3              | Scr: Alpha: 8.02E-04 uCi/Sa Beta: -6.41E-04 uCi/Sa                                 |
| 3868.00g,in<br>J8F040162-2-SAMP   |   | LZ 0607 7/3/16   |
|   | Rec: VIAL20,2X4LP #Containers: 3              | Scr: Alpha: 2.44E-04 uCi/Sa Beta: -3.76E-04 uCi/Sa                                 |
| 19 KPA7M-1-AA 3911.50g,in   | ITA7367<br>06/16/08 345                       | L4 0672  |
| J8F040165-1-SAMP<br>  | Rec: VIAL20,2X4LP #Containers: 3              | Scr: Alpha: 7.35E-04 uCi/Sa Beta: 5.97E-04 uCi/Sa                                  |
| TAL Richland Key: In - Initial Amt, fi - Final Amt,                               | di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 | ISV - Insufficient Volume for Analysis WO Cnt; 14                                  |
| ,,  | c-Enrichment Cell, ct-Cocktailed Added        | Prep_SamplePrep v  |

| 6/24/2008 1:43:38 PM  |                                | Sam                              | ple Prepa       | ration/An    | alysis    | The second of Physics | Balance              | e ld:1120482733 |                  |
|---|--------------------------------|----------------------------------|-----------------|--------------|-----------|-----------------------|----------------------|-----------------|------------------|
| 384868, Pacific Northwest Nation<br>Pacific Northwest National Lab  |                                | BN I-129 Prp/Se<br>TB Gamma by L |                 |              |           |                       | Pip                  | oet #:          |                  |
| AnalyDueDate: 07/21/2008  |                                | 51 CLIENT: HA                    |                 |              |           |                       | Sep1 DT/Tm T         | ech:            |                  |
| Batch: 8164618 WATER  | pCi/L                          |                                  | PM, Qu          | ote: SS , 57 | 671       |                       | Sep2 DT/Tm T         | ech:            |                  |
| SEQ Batch, Test: None   |                                |                                  |                 |              |           |                       | . Prep T             | ech: ,HarrisD   |                  |
| Work Order, Lot, Total  | Initial Aliquot                | QC Tracer                        | Dish            | Ppt or       | Count     | Detector              | Count On   Off       | CR Analyst,     | Commen           |
| Sample DateTime Amt/Unit  |                                | Prep Date                        | Size            | Geometry     | Time Min  | Id                    | (24hr) Circle        | Init/Date       | Commen           |
| 15 KPEV3-1-AE   | 3863.20g,in                    | ITA7368                          |                 | لايد         | 100       | i /                   | 153                  | 2/3/08          |                  |
| 8F050164-1-SAMP   |                                | 06/16/08                         |                 | 34.4         | 1         | 15                    | 0653                 | 5               |                  |
| <b>-</b>        <b>       </b>                                      | ArntRec: VIA                   | L20,6XLP,3X4LP                   | #Containers: 10 |              |           | Scr:                  | Alpha: 1.30E-03 uCV  | Sa Beta:        | -1.04E-03 uCi/Sa |
| 6 KPEX6-1-AE  | 3893.80g,in                    | ITA7369                          |                 | 2117         |           | <i>i</i> 0            |                      |                 |                  |
| J8F050177-1-SAMP  |                                | 06/16/08                         |                 | 34.7         | 1         | LZ                    | 0637                 |                 |                  |
| <b></b>   | AmtRec: VIA                    | L20,4XLP,3X4LP                   | #Containers: 8  |              |           | Scr:                  | Alpha: -3.16E-04 uCi | /Sa Beta:       | 4.59E-03 uCi/Sa  |
| TKPVMX-1-AA-B   | 3966.80g,in                    | ITA7370                          |                 | 34.1         |           | 4 .1                  |                      |                 |                  |
| J8F120000-618-BLK   |                                | 06/16/08                         |                 | 3711         |           | 64                    | 0838                 | . 14            |                  |
| <b>-                                       </b>                     | AmtRec:                        | #Containe                        |                 |              |           | Scr:                  | Alpha:               |                 | Beta:            |
| J&KPVMX-1-AC-C  | 3976.10g,in                    | ISD0855                          | ***             | 221          |           | /                     | /                    |                 |                  |
| J8F120000-618-LCS   |                                | 04/22/08                         |                 | 32.1         |           | CS                    | 0638                 | 1               |                  |
| 05/20/2008 13:22  | AmtRec:                        | #Containe                        | ors: 1          |              |           | Scr:                  | Alpha:               | V               | Beta:            |
| Comments: DHU 8   | allox                          |                                  |                 |              |           |                       |                      |                 |                  |
| 0001  | .1 0                           |                                  |                 |              |           |                       |                      |                 |                  |
|   |                                |                                  |                 |              |           |                       |                      |                 |                  |
| All Clients for Batch:<br>384868, Pacific Northwes                  | t Notional Laboratory          | Pacific                          | Northwest Na    | rional Lab   | SS , 5767 | 1                     |                      |                 |                  |
|   |                                |                                  |                 |              | 55 7 516  |                       |                      |                 |                  |
| KNTWQ1AA-SAMP Constituent Li<br>I-129 RDL:1.00E+00<br>KPVMX1AA-BLK: | pCi/L LCL:                     | UCL:                             | RPD:            |              |           |                       |                      |                 |                  |
| I-129 RDL:1.00E+00<br>KPVMX1AC-LCS:                                 | pCi/L LCL:                     | UCL:                             | RPD:            |              |           |                       |                      |                 |                  |
| I-129 RDL:5   | pCi/L LCL:70                   | UCL:130                          | RPD:20          |              |           |                       |                      |                 |                  |
| KNTWQ1AA-SAMP Calc Info:<br>Uncert Level (#s).: 2                   | Decay to SaDt: Y               | Blk Subt.:                       | N Sci.No        | ot.: Y       | DDRs: B   |                       |                      |                 |                  |
| ,   | Amt, fi - Final Amt, di - Dili |                                  |                 | Page 3       | ISV       | - Insufficient Vol    | ume for Analysis     |                 | WO Cnt: 18       |

| TES  | 6/24/2008 1:43:39 F                     |
|------|---|
| TAME | AnalyDueDate: 07/                       |
| RICA | Batch: 8164618<br>SEQ Batch, Test: None |

#### Sample Preparation/Analysis

Balance Id:1120482733

| BN | I-129 Prp/SepRC5025 |
|----|---------------------|
| TB | Gamma by LEPD       |
| 51 | CLIENT: HANEORD     |

Pipet #: \_\_\_\_

AnalyDueDate: 07/21/2008

pCi/L

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,HarrisD 

| Work Order, Lot, | Total    | Initial Aliquot | QC Tracer | Dish | Ppt or   | Count    | Detector | Count On   Off | CR Analyst, | Comments: |
|------------------|----------|-----------------|-----------|------|----------|----------|----------|----------------|-------------|-----------|
| Sample DateTime  | Amt/Unit | Amt/Unit        | Prep Date | Size | Geometry | Time Min | Id       | (24hr) Circle  | Init/Date   |           |
| KPVMX1AA-BLK:    |          |                 |           |      |          |          |          |                |             |           |

Uncert Level (#s) .: 2 KPVMX1AC-LCS: Uncert Level (#s) .: 2 Decay to Sant: Y Decay to SaDt: Y Blk Subt .: N Blk Subt .: N Sci.Not.: Y

ODRs: B

Sci.Not.: Y ODRs: B

> Approved By \_ Date:

7/10/2008 2:47:44 PM

# ICOC Fraction Transfer/Status Report ByDate: 7/11/2007, 7/15/2008, Batch: '8164618', User: \*ALL Order By DateTimeAccepting

| Q Batch Wor | k Ord CurStat | us A      | ccepting        |                       | Comments              |
|-------------|---------------|-----------|-----------------|-----------------------|-----------------------|
| 8164618     |               |           |                 |                       | 711. 241              |
| AC .        | Rev1C         | HarrisD   | 6/24/2008 1:10  | :15 PM                |                       |
| SC          |               | wagarr    | IsBatched       | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC          |               | HarrisD   | InPrep          | 6/24/2008 1:10:15 PM  | RL-PRP-004 REVISION 0 |
| SC          |               | HarrisD   | Prep1C          | 6/24/2008 1:44:02 PM  | RL-PRP-004 REVISION 0 |
| SC          |               | BostedD   | InPrep2         | 6/30/2008 10:57:42 AM | RL-GAM-002 REVISION 0 |
| SC          |               | BostedD   | Prep2C          | 7/2/2008 4:24:07 PM   | RL-GAM-002 REVISION 0 |
| SC          |               | DAWKINSO  | InCnt1          | 7/2/2008 4:28:07 PM   | RL-CI-007 REVISION 0  |
| SC          |               | BlackCL   | CalcC           | 7/3/2008 9:10:33 AM   | RL-CI-007 REVISION 0  |
| SC          |               | antonsonl | Rev1C           | 7/10/2008 2:47:33 PM  | RICH-RC-0002 REV 8    |
| IC          |               | HarrisD   | 6/24/2008 1:44  | :02 PM                |                       |
| AC          |               | BostedD   | 6/30/2008 10:5  | 7:42                  |                       |
| 9C          |               | BostedD   | 7/2/2008 4:24:0 | 07 PM                 |                       |
| 4C          |               | DAWKINSO  | 7/2/2008 4:28:0 | 7 PM                  |                       |
| AC          |               | BlackCL   | 7/3/2008 9:10:3 | 33 AM                 |                       |
| AC          |               | antonsoni | 7/10/2008 2:47  | :33 PM                |                       |
|             |               |           |                 |                       |                       |

AC: Accepting Entry; SC: Status Change

TAL Richland Richland Wa.

Page 1

Grp Rec Cnt: 7
ICOCFractions v4.8.33

|   |          |                   | Sample Prepar                                       | ation/Analysis |          | Balanc               | e ld:1120482733                         |                 |
|---|----------|-------------------|---|----------------|----------|----------------------|---|-----------------|
| 384868, Pacific Northwest<br>Pacific Northwest National |          |                   | e-79 PrpRC5016, SepRC5<br>elenium-79 by Liquid Scir |                |          | Pij                  | pet #:                                  |                 |
| AnalyDueDate: 07/21/20                                  | 11001    | 1                 | LIENT: HANFORD                                      | nt .           |          | Sep1 DT/Tm 1         | Tech:                                   |                 |
| Batch: 8164621 WA                                       | 0000     | i/L               | PM, Quo   | te: SS , 57671 |          | Sep2 DT/Tm 7         | Tech:                                   |                 |
| SEQ Batch, Test: None                                   |          |                   |   |                |          |                      | Tech: WoodT,Harri                       | sD              |
| Work Order, Lot,  | Total    | Initial Aliquot   |   | acer Count     | Detector | Count On Off         | CR Analyst,                             | I Comments      |
| Sample DateTime   | Amt/Unit | Amt/Unit          |   | ield Time Min  | Id       | (24hr) Circle        | Init/Date                               |                 |
| 1 KN1JT-1-AF  |          | 200.00g,in        | SETA0267  | 50             |          |                      |   |                 |
| J8E280299-1-SAMP  |          |                   | 04/11/08  |                |          |                      |   |                 |
| <b> </b>    <b>                                    </b> |          | AmtRec: 20ML.6XL  | P.3X4LP #Containers: 10                             |                | Scr:     | Alpha: -1.54E-03 uCi | i/Sa Beta: 2                            | .66E-03 uCi/Sa  |
| 2 KN1JT-1-AH-X  |          | 199.90g,in        | SETA0268  |                |          |                      |   |                 |
| J8E280299-1-DUP   |          |                   | 04/11/08  |                |          |                      |   |                 |
|   |          | AmtRec; 20ML,6XL  | R 2YAL B #Containers: 10                            |                | Cor      | Alpho: 1 545 02 ::0  | i/Co Poto (                             | GGE DO UCICA    |
| 05/27/2008 09:57<br>3 KN1JX-1-AF                        |          | 199.90g,in        | P,3X4LP #Containers: 10<br>SETA0269                 |                | Scr:     | Alpha: -1.54E-03 uC  | vsa Beta. 2                             | :.66E-03 uCi/Sa |
|   |          | 100.009,111       | 06/24/08  |                |          |                      |   |                 |
| J8E280299-2-SAMP  |          |                   |   |                |          |                      | *************************************** |                 |
| 05/27/2008 11:13  |          | AmtRec: 20ML,6XL  |   |                | Scr:     | Alpha: 4.10E-04 uCi  | /Sa Beta: -                             | 1.24E-04 uCVSa  |
| 4 KPEV3-1-AF  |          | 200.30g,in        | SETA0270<br>06/24/08                                |                |          |                      |   |                 |
| J8F050164-1-SAMP  |          |                   |   |                |          |                      |   |                 |
| 06/04/2008 09:30  |          | AmtRec: VIAL20,6X | LP,3X4LP #Containers: 10                            |                | Scr:     | Alpha: 1.30E-03 uCi  | i/Sa Beta: -                            | 1.04E-03 uCi/Sa |
| 5 KPVM2-1-AA-B  |          | 200.20g,in        | SETA0271  |                |          |                      |   |                 |
| J8F120000-621-BLK                                       |          |                   | 06/24/08  |                |          |                      |   |                 |
| 05/27/2008 09:57  |          | AmtRec:           | #Containers: 1                                      |                | Scr:     | Alpha:               |   | Beta:           |
| 6 KPVM2-1-AC-BN   |          |                   |   |                |          |                      |   |                 |
| J8F120000-621-IBLK                                      |          |                   |   | 1              |          |                      |   |                 |
|   |          | AmtRec:           | #Containers: 1                                      |                | Scr:     | Alpha:               |   | Beta:           |
| 05/27/2008 09:57  |          | AmtHec:           | *Containers. t                                      |                | 301.     | Alpha.               |   | Deta.           |

| 6/24/2008 4:13:24 PM   |                             | Sample                              | Preparation       | /Analysis         |                | Baland                          | ce ld:                   |        |
|--|-----------------------------|-------------------------------------|-------------------|-------------------|----------------|---------------------------------|--------------------------|--------|
|  | TM                          | Se-79 PrpRC5010<br>Selenium-79 by L | iquid Scint       |                   |                |                                 | ipet #:                  |        |
| AnalyDueDate: 07/21/2008   | 51                          | CLIENT: HANFO                       | RD                |                   |                | Sep1 DT/Tm                      | Tech:                    |        |
| Batch: 8164621   | pCi/L                       |                                     |                   |                   |                | Sep2 DT/Tm                      | Tech:                    |        |
| SEQ Batch, Test: None  |                             |                                     |                   |                   |                | Prep                            | Tech:                    |        |
| Work Order, Lot, Total Sample DateTime Amt/Unit  | Initial Alique<br>Amt/Unit  | ot   QC Trace                       | r Tracer          | Count<br>Time Min | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Commen |
| 7 (10 - 10   | HUB                         | 1108                                |                   |                   |                |                                 |                          |        |
| 11 Clients for Batch:<br>384868, Pacific Northwest Natio   | nal Laboratory              |                                     | hwest National    | Lab, SS , 57      | 7671           |                                 |                          |        |
| ll Clients for Batch: 384868, Pacific Northwest Natio N1JT1AF-SAMP Constituent List: Se-79 RDL:3.00E+01 pCi/L  | nal Laboratory              | UCL: RPD                            |                   | Lab, SS , 57      | 7671           |                                 |                          |        |
| All Clients for Batch: 384868, Pacific Northwest Natio CNIJT1AF-SAMP Constituent List: Se-79 RDL:3.00E+01 pCi/L CPVM21AA-BLK: Se-79 RDL:3.00E+01 pCi/L   | nal Laboratory              |                                     |                   | Lab, SS , 57      | 7671           |                                 |                          |        |
| ll Clients for Batch: 384868, Pacific Northwest Natio N1JT1AF-SAMP Constituent List: Se-79 RDL:3.00E+01 pCi/L PVM21AA-BLK: Se-79 RDL:3.00E+01 pCi/L  | nal Laboratory              | UCL: RPD                            | :                 | Lab, SS , 57      | 7671           |                                 |                          |        |
| 11 Clients for Batch: 384868, Pacific Northwest Natio  N1JT1AF-SAMP Constituent List: Se-79 RDL:3.00E+01 pCi/L PVM21AA-BLK: Se-79 RDL:3.00E+01 pCi/L PVM21AC-IBLK: Se-79 RDL:3.00E+01 pCi/L INIJT1AF-SAMP Calc Info: Uncert Level (#s).: 2 Deca  | LCL:                        | UCL: RPD                            | :                 | Lab, SS, 57       | 7671           |                                 |                          |        |
| All Clients for Batch:  384868, Pacific Northwest Nation  INIJTIAF-SAMP Constituent List: Se-79 RDL:3.00E+01 pCi/L  IPVM21AA-BLK: Se-79 RDL:3.00E+01 pCi/L  IPVM21AC-IBLK: Se-79 RDL:3.00E+01 pCi/L  INIJTIAF-SAMP Calc Info: Uncert Level (#s).: 2 Deca  IPVM21AA-BLK: Uncert Level (#s).: 2 Deca   | LCL: LCL:                   | UCL: RPD UCL: RPD                   | :                 |                   | 7671           |                                 |                          |        |
| All Clients for Batch:  384868, Pacific Northwest Natio  CN1JT1AF-SAMP Constituent List: Se-79 RDL:3.00E+01 pCi/L  CPVM21AA-BLK: Se-79 RDL:3.00E+01 pCi/L  CPVM21AC-IBLK: Se-79 RDL:3.00E+01 pCi/L  CN1JT1AF-SAMP Calc Info: Uncert Level (#s).: 2 Deca  CRVM21AA-BLK: Uncert Level (#s).: 2 Deca  CRVM21AC-IBLK: Uncert Level (#s).: 2 Deca | LCL: LCL: LCL: y to SaDt: Y | UCL: RPD UCL: RPD UCL: RPD          | : : : Sci.Not.: Y | ODRs: B           | 7671           |                                 |                          |        |

7/18/2008 10:29:11 AM

# ICOC Fraction Transfer/Status Report ByDate: 7/19/2007, 7/23/2008, Batch: '8164621', User: \*ALL Order By DateTimeAccepting

| Q Batch Work | Ord CurStat | us      | Accepting       |                       | Comments              |
|--------------|-------------|---------|-----------------|-----------------------|-----------------------|
| 8164621      |             |         |                 |                       |                       |
| AC           | Rev1C       | HarrisD | 6/24/2008 4:07: | 27 PM                 |                       |
| SC           |             | wagarr  | IsBatched       | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC           |             | HarrisD | InPrep          | 6/24/2008 4:07:27 PM  | RL-PRP-004 REVISION 0 |
| SC           |             | HarrisD | Prep1C          | 6/24/2008 4:13:23 PM  | RL-PRP-004 REVISION 0 |
| SC           |             | ManisD  | InSep1          | 7/1/2008 8:04:03 AM   | LSC-012 REV 0         |
| SC           |             | BlackCL | InCnt1          | 7/3/2008 9:41:25 AM   | RL-CI-005 REVISION 0  |
| SC           |             | BlackCL | CalcC           | 7/8/2008 9:44:25 AM   | RL-CI-005 REVISION 0  |
| SC           |             | nortonj | Rev1C           | 7/18/2008 10:29:02 AM | RICH-RC-0002 REV 8    |
| AC           |             | HarrisD | 6/24/2008 4:13: | 23 PM                 |                       |
| AC           |             | ManisD  | 7/1/2008 8:04:0 | 3 AM                  |                       |
| AC           |             | BlackCL | 7/3/2008 9:41:2 | 5 AM                  |                       |
| 4C           |             | BlackCL | 7/8/2008 9:44:2 | 5 AM                  |                       |
| AC           |             | nortonj | 7/18/2008 10:29 | 9:02                  |                       |

AC: Accepting Entry; SC: Status Change

TAL Richland Richland Wa.

Grp Rec Cnt:6 ICOCFractions v4.8.33

Page 1



| ***RE-ANALY    | SIS REQUI | EST***                    |                |
|----------------|-----------|---------------------------|----------------|
| DUE DATE       | 121/08    |                           |                |
|                |           |                           |                |
| CUSTOMER P6    | W         |                           |                |
|                | $\sim$    |                           |                |
| ANALAYSIS X    | 19        |                           |                |
| MATRIX WAY     | er        |                           |                |
| LOT NUMBER J   | 892638    | 9                         |                |
| SAMPLE DELIVER |           |                           |                |
|                |           | 61                        |                |
| OLD BATCH NUM  | BER DICU  | (i)                       |                |
| NEW BATCH NUM  | MBER 819  | auria                     |                |
|                |           |                           |                |
| LAB SAMPLE ID  | CLIENT ID | REASON FOR REQUEST & ANAL | LYSIS COMMENTS |
| 1) KOZV31AF    |           | CEPT not met due to       | law weld       |
| 2) 3)          |           |                           | 000            |
| 3)             |           |                           |                |
| 4)             |           |                           |                |
| 5)             |           |                           |                |
| 6)             |           |                           |                |
| 7)             |           |                           |                |
| 8)             |           |                           |                |
| 10)            |           |                           |                |
| 11)            |           |                           |                |
| 12)            |           |                           |                |
| 13)            |           |                           |                |
| 14)            |           |                           |                |
| -15)           |           |                           |                |
| 16)            |           |                           |                |
| 17)            |           |                           |                |
| 18)            |           |                           |                |
| 19)            |           |                           |                |
| 20)            |           |                           |                |
| LAB OC ID      |           | Assigned with new batch.  |                |

RC-048, 12/07, Rev 8

| 7/11/2008 10:46:20 AM  |                              |                            | Sam            | ple Pr         | eparation/      | Analys          | is    | **************************************                |        | Balan                           | ice Id:1120 | 182733    |               |
|--|------------------------------|----------------------------|----------------|----------------|-----------------|-----------------|-------|---|--------|---------------------------------|-------------|-----------|---------------|
| 384868, Pacific Northwest Natio<br>Pacific Northwest National Lab                | onal Laboratory              |                            | Se-79 PrpR0    |                |                 |                 |       |   |        | F                               | Pipet #:    |           |               |
| AnalyDueDate: 07/21/2008   |                              |                            | CLIENT: HA     | -              | no John         |                 |       | Sep1 DT/Tm Tech: Sep2 DT/Tm Tech: Prep Tech: ,HarrisD |        |                                 |             |           |               |
| Batch: 8192442 WATER   | <b>pCi</b><br>s: 8164617 AWT |                            | NTB, 8164621   | CYTM, 81       |                 | 164623 7        |       |   |        |                                 |             |           |               |
| Work Order, Lot,<br>Sample DateTime  | Total<br>mt/Unit             | Initial Alique<br>Amt/Unit |                | Tracer<br>Date | Tracer<br>Yield | Count<br>Time M |       | Detector<br>Id  | 1 0    | Count On   Off<br>(24hr) Circle | CR Ana      |           | Commen        |
| 1 KPEV3-2-AF   |                              | 200.00g,in                 | SETA0          |                | 0               | 1250            | 2     |   |        |                                 |             | W. S.     |               |
| J8F050164-1-SAMP<br>   |                              | AmtRec: VIAL20             | 06/24/         | #Container     | rs: 10          |                 |       | •••••   | Scr:   | Alpha: 1.30E-03 u               | Ci/Sa       | Beta: -1. | 04E-03 uCi/Sa |
| 2 KRCQM-1-AA-B   |                              | 200.20g,in                 | SETA0<br>06/24 |                |                 |                 |       |   |        |                                 |             |           | 1             |
| J8G100000-442-BLK  |                              | AmtRec:                    | #Contain       | I              |                 |                 |       |   | Scr:   | Alpha:                          |             |           | Beta:         |
| 3 KRCQM-1-AD-BN  |                              |                            |                |                |                 |                 |       |   |        |                                 |             |           |               |
| J8G100000-442-IBLK<br>   |                              | AmtRec:                    | #Contain       | I              |                 |                 |       |   | Scr:   | Alpha:                          |             |           | Beta:         |
| 41100  | Over                         | ,,,,(                      |                |                |                 |                 |       |   |        |                                 |             |           |               |
| All Clients for Batch:<br>384868, Pacific Northwe                                | st National I                | aboratory                  | Pacific        | Northwe        | st National     | ab, ss          | , 576 | 571   |        |                                 |             | 90        |               |
| KPEV32AF-SAMP Constituent L<br>Se-79 RDL:3.00E+01<br>KRCQM1AA-BLK Constituent Li | pCi/L                        | LCL:                       | UCL:           | RPD:           |                 |                 |       |   |        |                                 |             |           |               |
| Se-79 RDL:3.00E+01 KRCQM1AD-IBLK:  | pCi/L                        | LCL:                       | UCL:           | RPD:           |                 |                 |       |   |        |                                 |             |           |               |
| 8e-79 RDL:3.00E+01   | pCi/L                        | LCL:                       | UCL            | RPD:           |                 |                 |       |   |        |                                 |             |           |               |
| Vncert Level (#s).: 2  KRCOM1AA-BLK Calc Info:                                   | Decay to                     | SaDt: Y                    | Blk Subt.:     | N S            | ci.Not.: Y      | ODRs:           | В     |   |        |                                 |             |           |               |
| Uncert Level (#s):: 2 KRCQMIAD-IBLK:   | Decay to                     | SaDt: Y                    | Blk Subt.:     |                | Sci.Not.: Y     | ODRs:           |       |   |        |                                 |             |           |               |
| Uncert Level (#s).: 2  | Decay to                     | SaDt: Y                    | Blk Subt.:     | N S            | Sci.Not.: Y     | ODRs:           | В     |   |        |                                 |             |           |               |
| TAL Richland Key: In - Initia  | Amt, fi - Final              | Amt di Dilute              | d Amt st - Sen | 1 s2 - Sa      | p2 Page 1       |                 | 191   | V - Insufficier                                       | t Volu | me for Analysis                 |             | V         | VO Cnt: 3     |
|  | Dt, r - Reference            |                            |                |                |                 |                 | 10    |   |        |                                 |             |           | SamplePrep    |

| -1  | 7/11/2008 10:46:21 AM                          |                   |                             | Sample Pro  | eparation       | /Analysis         |                | Balan                           | Balance Id:              |          |  |
|-----|--|-------------------|-----------------------------|---|-----------------|-------------------|----------------|---------------------------------|--------------------------|----------|--|
| TST | 7/11/2008 10:46:21 AM<br>AnalyDueDate: 07/21/2 |                   |                             | CY Se-79 PrpRC5016, SepRC5043<br>TM Selenium-79 by Liquid Scint   |                 |                   |                |                                 | Pipet #:                 |          |  |
| ME  | AnalyDueDate: 07/21/2                          | 2008              |                             | NT: HANFORD   |                 |                   |                | Sep1 DT/Tm                      | Tech:                    |          |  |
| ~ I | Batch: 8192442                                 |                   | pCi/L                       |   |                 |                   |                | Sep2 DT/Tm                      | Tech:                    |          |  |
| A   | SEQ Batch, Test: None                          |                   |                             | 1 (8 A S A C   18 S A |                 |                   |                | Prep                            |                          |          |  |
|     | Work Order, Lot,<br>Sample DateTime            | Total<br>Amt/Unit | Initial Aliquot<br>Amt/Unit | QC Tracer<br>Prep Date  | Tracer<br>Yield | Count<br>Time Min | Detector<br>Id | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comments |  |

Date:

7/18/2008 10:33:14 AM

# ICOC Fraction Transfer/Status Report ByDate: 7/19/2007, 7/23/2008, Batch: '8192442', User: \*ALL Order By DateTimeAccepting

| Q Batch Work | Ord CurStat | us A       | ccepting        |                       | Comments              |
|--------------|-------------|------------|-----------------|-----------------------|-----------------------|
| 8192442      |             |            |                 |                       |                       |
| AC .         | Rev1C       | HarrisD    | 7/11/2008 10:4  | 3:20                  |                       |
| SC           |             | an::onson! | IsBatched       | 7/10/2008 3:21:39 PM  | ICOC_RADCALC v4.8.32  |
| SC           |             | HarrisD    | InPrep          | 7/11/2008 10:43:20 AM | RL-PRP-004 REVISION 0 |
| SC           |             | HarrisD    | Prep1C          | 7/11/2008 10:46:38 AM | RL-PRP-004 REVISION 0 |
| SC           |             | ManisD     | Sep1C           | 7/16/2008 3:54:09 PM  | RL-LSC-012 REV 0      |
| SC .         |             | DAWKINSO   | InCnt1          | 7/16/2008 4:14:59 PM  | RL-CI-005 REVISION 0  |
| SC .         |             | DAWKINSO   | CalcC           | 7/17/2008 9:27:23 PM  | RL-CI-005 REVISION 0  |
| C            |             | nortonj    | Rev1C           | 7/18/2008 10:33:09 AM | RICH-RC-0002 REV 8    |
| C            |             | HarrisD    | 7/11/2008 10:4  | 6:38                  |                       |
| C            |             | ManisD     | 7/16/2008 3:54  | :09 PM                |                       |
| C            |             | DAWKINSO   | 7/16/2008 4:14: | :59 PM                |                       |
| IC           |             | DAWKINSO   | 7/17/2008 9:27: | :23 PM                |                       |
| IC           |             | nortonj    | 7/18/2008 10:33 | 3:09                  |                       |

AC: Accepting Entry; SC: Status Change

TAL Richland

Richland Wa. TESTAMERICA Page 1

Grp Rec Cnt:6 ICOCFractions v4.8.33

| 6/13/2008 8:10:59 AM  384868, Pacific Northwest National Laboratory , 58 Pacific Northwest National Lab AnalyDueDate: 07/21/2008 51  Batch: 8164624 WATER pCi/L SEQ Batch, Test: None  | Sample Preparation/A                | nalysis                               | Balance Id:             | NA                     |
|--|-------------------------------------|---------------------------------------|-------------------------|------------------------|
| 384868, Pacific Northwest National Laboratory , 58   | C-14 Prp/SepRC5022                  |                                       | Pipet #:                |                        |
| Pacific Northwest National Lab   | Carbon-14 by Liquid Scint           |                                       |                         | . 10.0000              |
| AnalyDueDate: 07/21/2008   | CLIENT: HANFORD                     |                                       | Sep1 DI/Im Tech:        | 020080m                |
| Batch: 8164624 WATER pCi/L   | PM, Quote: SS, 5                    | 7671                                  | Sep2 DT/Tm Tech:        |                        |
| SEQ Batch, Test: None  |                                     |                                       | Prep Tech:              |                        |
|  |                                     |                                       |                         |                        |
| Work Order, Lot, Sample DateTime  Total Initial Aliquot Amt/Unit Amt/Unit  | QC Tracer Count Prep Date Time Min  | Detector Count On  <br>Id (24hr) Circ |                         |                        |
| 1 KN1JT-1-AC   |                                     |                                       |                         |                        |
| J8E280299-1-SAMP   |                                     |                                       |                         |                        |
|  |                                     |                                       |                         |                        |
| 05/27/2008 09:57 AmtRec: 20ML,6  | XLP,3X4LP #Containers: 10           | Scr:                                  | Alpha: -1.54E-03 uCi/Sa | Beta: 2.66E-03 uCi/Sa  |
| 2 KN1JX-1-AC   |                                     |                                       |                         |                        |
| J8E280299-2-SAMP   |                                     |                                       |                         |                        |
|  |                                     |                                       |                         |                        |
| 05/27/2008 11:13 AmtRec: 20ML,6  | XLP,3X4LP #Containers: 10           | Scr.                                  | Alpha: 4.10E-04 uCi/Sa  | Beta: -1.24E-04 uCi/Sa |
| 3 KN1JX-1-AJ-X   |                                     |                                       |                         |                        |
| J8E280299-2-DUP  |                                     |                                       |                         |                        |
|  |                                     |                                       |                         |                        |
| 05/27/2008 11:13 AmtRec: 20ML,6<br>4 KPEV3-1-AC  | XLP,3X4LP #Containers: 10           | Scr:                                  | Alpha: 4.10E-04 uCi/Sa  | Beta: -1.24E-04 uCi/Sa |
| 4 KPEV3-1-AC   |                                     |                                       |                         |                        |
| J8F050164-1-SAMP   |                                     |                                       |                         |                        |
|  |                                     | C                                     | Alahar 4 005 00 - 010-  | D-1- 4 045 00 000      |
| 06/04/2008 09:30 AmtRec: VIAL20  | 6XLP,3X4LP #Containers: 10          | Scr:                                  | Alpha: 1.30E-03 uCi/Sa  | Beta: -1.04E-03 uCi/Sa |
| 5 KPVM5-1-AA-B   |                                     |                                       |                         |                        |
| J8F120000-624-BLK  |                                     |                                       |                         |                        |
| 05/27/2008 11:13 Am/Rec:   |                                     | Corr                                  | Alaba                   | Data                   |
|  | #Containers: 1                      | Scr:                                  | Alpha:                  | Beta:                  |
| 6 KPVM5-1-AC-C   |                                     |                                       |                         |                        |
| J8F120000-624-LCS  |                                     |                                       |                         |                        |
| 05/27/2008 11:13   |                                     | Scr.                                  | Alpha:                  | Beta:                  |
|  | #Containers: 1                      | Su.                                   | Alpha.                  | века.                  |
| 7 KPVM5-1-AD-BN  |                                     |                                       |                         |                        |
| J8F120000-624-IBLK   | 1 00 / 400 b PF 4/8 00 b am 1/1 004 |                                       |                         |                        |
|  | #Containers: 1                      | Scr:                                  | Alpha:                  | Beta:                  |
| Allunes.   | FOORtaniors, 1                      | Ju.                                   | лірііа.                 | Deta.                  |
| the state of the s |                                     |                                       |                         |                        |
| TAL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted   | Amt, s1 - Sep1, s2 - Sep2 Page 1    | ISV - Insufficient Volun              | e for Analysis          | WO Cnt: 7              |
|  | ent Cell, ct-Cocktailed Added       | TOV - Industrial Volum                |                         | ICOC V4                |

| 6/13/2008 8:10:59 A   | M               |          |                           | Sa  | mple              | Preparati                  | on/Analy   | sis     |                                 | Balance Id: N/iA                     |             |  |  |  |
|---|-----------------|----------|---------------------------|---|-------------------|----------------------------|------------|---------|---------------------------------|--------------------------------------|-------------|--|--|--|
| AnalyDueDate: 07/2  | 21/2008         |          |                           | 5S C-14 Prp/S<br>S3 Carbon-14<br>5I CLIENT: H | by Liq            | uid Scint                  |            |         | Sep1                            | Pipet #:  Sep1 DT/Tm Tech: 6 30 8 pm |             |  |  |  |
| Batch: 8164624  | -               | pC       | CI/L                      |   |                   | •                          |            |         | Sep2                            | DT/Tm Tech:                          |             |  |  |  |
| SEQ Batch, Test: None   |                 |          |                           |   |                   |                            |            | e       |                                 | Prep Tech:                           |             |  |  |  |
|   |                 | - 16     | total Atto                |   |                   | التناسية والمستعدمة وبرابع |            |         |                                 |                                      | II Commonto |  |  |  |
| Work Order, Lot,<br>Sample DateTime   | Total<br>Amt/Un | it       | Initial Aliqu<br>Amt/Unit |   | Tracer<br>ep Date | Count<br>Time N            |            | ld      | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date             | Comments    |  |  |  |
| All Clients for Bat<br>384868, Pacific<br>KN1JT1AC-SAMP Const<br>C-14 RDL:2<br>KPVM51AA-BLK:<br>KPVM51AC-LCS: | Northwest       |          | Laboratory                | Pacific<br>UCL:130                            | RPD               | ewest Nation               | al Lab, Sa | 3 , 576 | 571                             |                                      |             |  |  |  |
| KPAM2IND-IPTK!  |                 |          |                           |   |                   |                            |            |         |                                 |                                      |             |  |  |  |
| KN1JT1AC-SAMP Calc  |                 |          |                           | W11 0.10                                      |                   | a-1 m-4 :                  | Y ODRE     |         |                                 |                                      |             |  |  |  |
| Uncert Level (<br>KPVM51AA-BLK:   | (#s) -: 2       | Decay to | SaDt: Y                   | Blk Subt.                                     | : N               | Sci.Not.:                  | I ODKE     | В       |                                 |                                      |             |  |  |  |
| Uncert Level (KPVM51AC-LCS:   | (#s).: 2        | Decay to | SaDt: Y                   | Blk Subt.                                     | : N               | Sci.Not.:                  |            |         |                                 |                                      |             |  |  |  |
| Uncert Level ( KPVM51AD-IBLK:   | (#s).: 2        | Decay to | SaDt: Y                   | Blk Subt.                                     | 2 N               | Sci.Not.:                  | Y ODRs     | : В     |                                 |                                      |             |  |  |  |
| Uncert Level  | (#s).: 2        | Decay to | SaDt: Y                   | Blk Subt.                                     | 2 N               | Sci.Not.:                  | Y ODRs     | В       |                                 |                                      |             |  |  |  |
|   |                 |          |                           |   |                   |                            | Approved B | r       |                                 | Date:                                |             |  |  |  |
|   |                 |          |                           |   |                   |                            |            |         |                                 |                                      |             |  |  |  |
|   |                 |          |                           |   |                   |                            |            |         |                                 |                                      |             |  |  |  |

6/25/2008 11:06:46 AM

# ICOC Fraction Transfer/Status Report ByDate: 6/26/2007, 6/30/2008, Batch: '8164624', User: \*ALL Order By DateTimeAccepting

| Batch Work Ord | CurStatus | A         | ccepting        |                       | Comments              |
|----------------|-----------|-----------|-----------------|-----------------------|-----------------------|
| 3164624        |           |           |                 |                       |                       |
| C              | Rev1C     | McDowellD | 6/23/2008 2:13  | :52 PM                |                       |
| SC .           |           | wagarr    | IsBatched       | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC .           |           | McDowellD | Sep1C           | 6/23/2008 2:13:52 PM  | RL-LSC-008 REVISION 0 |
| SC .           |           | ClarkR    | InCnt1          | 6/23/2008 2:28:34 PM  | RL-CI-005 REVISION 0  |
| SC .           |           | ClarkR    | CalcC           | 6/24/2008 8:26:35 AM  | RL-CI-005 REVISION 0  |
| SC .           |           | antonsonl | Rev1C           | 6/25/2008 11:06:38 AM | RICH-RC-0002 REV 8    |
| C              |           | ClarkR    | 6/23/2008 2:28  | 34 PM                 |                       |
| C              |           | ClarkR    | 6/24/2008 8:26: | 35                    |                       |
| C              |           | antonsoni | 6/25/2008 11:0  | 6:38                  |                       |
|                |           |           |                 |                       |                       |

C: Accepting Entry; SC: Status Change

TAL Richland Richland Wa.

Page 1

Grp Rec Cnt:4 ICOCFractions v4.8.33

| ١٩ | 5/25/2008 9:12:50 PM<br>384868, Pacific Northwest National Labor           |  | Sample Preparati  | on/Analysis  |                              | Balance Id:1           | 120482733              |
|----|--|--|---|--|------------------------------|------------------------|------------------------|
| 3  | 384868, Pacific Northwest National Labor<br>Pacific Northwest National Lab |  | Nat_Laser PrpRC5015<br>otal Uranium by KPA                    |  |                              | Pipet #:               |                        |
|    | AnalyDueDate: 07/21/2008 11775   |  | LIENT: HANFORD  |  |                              | Sep1 DT/Tm Tech:       |                        |
|    | Batch: 8164620 WATER   | ug/L   | PM, Quote:  | SS 57671   |                              | Sep2 DT/Tm Tech:       |                        |
|    | SEQ Batch, Test: None  | J  | i ini, a a c c c  | 00,010.  |                              |                        |                        |
|    |  |  |   |  |                              |                        | HarrisD   Bock         |
|    | Work Order, Lot, Total Sample DateTime Amt/Unit                            | Initial Aliquot<br>Amt/Unit                                    | QC Tracer Countries No.                                       |  | Count On   (<br>(24hr) Circl |                        |                        |
| 1  | KPEVW-1-AD   | 25.10g,in  |   |  |                              |                        |                        |
| J  | 8F050162-1-SAMP  |  |   |  |                              |                        |                        |
| (  | <b>                                 </b>                                   | AmtRec: VIAL20,50  | 0MLP,LP #Containers: 3  |  | Scr:                         | Alpha: 2.27E-04 uCi/Sa | Beta: -4.14E-06 uCVSa  |
| -  | 2 KPEVW-1-AF-S   | 25.00g,in  | UNSF4247  |  |                              |                        |                        |
|    | J8F050162-1-MS   |  | 05/22/08,pd<br>.02/01/86 r                                    |  |                              |                        |                        |
| -  |  | AmtRec: VIAL20,50  | OMLP.LP #Containers: 3  |  | Scr:                         | Alpha: 2.27E-04 uCi/Sa | Beta: -4.14E-06 uCi/Sa |
| -  | 3 KPEVW-1-AG-X   | 25.10g,in  |   |  |                              |                        |                        |
|    | J8F050162-1-DUP  |  |   |  |                              |                        |                        |
|    |  | AmtRec: VIAL20,50  |   | . w is m is for or even or is the time of the time on main projects of the time of the side of the sid | Scr:                         | Alpha: 2.27E-04 uCi/Sa | Beta: -4.14E-06 uCi/Sa |
|    | 4 KPVM1-1-AA-B   | 25.10g,in  |   |  |                              |                        |                        |
|    | J8F120000-620-BLK  |  |   |  |                              |                        |                        |
| 1  | <b>- </b>    <b>                                    </b>                   | AmtRec:  | #Containers; 1  | · · · · · · · · · · · · · · · · · · ·  | Scr:                         | Alpha:                 | Beta:                  |
| H  | 5 KPVM1-1-AC-C   | 25.20g,in  | UNSF4248  |  |                              |                        | 504.                   |
|    | J8F120000-620-LCS  |  | 05/22/08,pd   |  |                              |                        |                        |
| -  |  | AmtRec:  | #Containers: 1  |  | Scr:                         | Alpha:                 | Beta:                  |
| H  | 6 KPVM1-1-AD-C   | 25.20g,in  | UNSC2527  |  |                              |                        | 500.                   |
|    | J8F120000-620-LCS  |  | 05/22/08,pd   |  |                              |                        |                        |
|    | J8F 120000-620-LCS   | THE RES IN CO. LEWIS & LAW OF STREET AND R. P. LEWIS AND R. P. | 81 (8 ) 86 (1 <b>) ) ( 3</b> (1 ) ) <b>(6 ) 1 (8 ) 1 (8 )</b> | ***************************************  |                              |                        |                        |
| ŀ  |  | AmtRec:  | #Containers: 1  |  | Scr:                         | Alpha:                 | Beta:                  |

| 6/25/2008 9:12:51 PM   |   |  | San H UNat_Laser S Total Uranii |  |                   | nalysis     | 3                          |                                 |          | ce ld:11204827<br>lipet #: | 33     |
|--|---|--|---------------------------------|--|-------------------|-------------|----------------------------|---------------------------------|----------|----------------------------|--------|
| AnalyDueDate: 07/21/2008   |   | 5  | I CLIENT: HA                    | NFORD                                      |                   |             |                            | Se                              | p1 DT/Tm | Tech:                      |        |
| Batch: 8164620   | ug/L  |  |                                 |  |                   | - 46.       |                            | Se                              | p2 DT/Tm | Tech                       |        |
| SEQ Batch, Test: None  | 3-  |  |                                 |  |                   |             |                            | -                               |          |                            |        |
|  |   |  |                                 | LIBRIDI                                    | ININI II DE S     |             |                            |                                 | Prep     | Tech: ,HarrisD             |        |
| Work Order, Lot, Sample DateTime Tota  |   | Initial Aliquo<br>Amt/Unit                 |                                 | Tracer<br>Date                             | Count<br>Time Min | Detected Id | فالماكنات فيساكنا فالمتالب | Count On   Off<br>(24hr) Circle |          | CR Analyst,<br>Init/Date   | Commen |
|  |   |  |                                 |  |                   |             |                            |                                 |          |                            |        |
| All Clients for Batch: 384868, Pacific Northwest  KPEVW1AD-SAMP Constituent Lis Uranium RDL:1.44E-01  KPEVW1AF-MS Constituent List:  | it:<br>ug/L I                                 | aboratory                                  | Pacific<br>UCL:                 | Northwest !                                | National La       | ab, SS ,    | 57671                      |                                 |          |                            |        |
| 384868, Pacific Northwest  KPEVW1AD-SAMP Constituent Lis  Uranium RDL:1.44E-01  KPEVW1AF-MS Constituent List:  KPVM11AA-BLK:  Uranium RDL:1.44E-01   | st:<br>ug/L I                                 |  |                                 |  | National La       | nb, SS,     | 57671                      |                                 |          |                            |        |
| 384868, Pacific Northwest  KPEVW1AD-SAMP Constituent Lis  Uranium RDL:1.44E-01  KPEVW1AF-MS Constituent List:  KPVM11AA-BLK:   | ug/L I  | LCL:                                       | UCL:                            | RPD:                                       | National La       | nb, SS,     | 57671                      |                                 |          |                            |        |
| 384868, Pacific Northwest  RPEVW1AD-SAMP Constituent Lis  Uranium RDL:1.44E-01  KPEVW1AF-MS Constituent List:  RPVM11AA-BLK:  Uranium RDL:1.44E-01  KPVM11AC-LCS:  Uranium RDL:0.144343  | ug/L I ug/L I ug/L I                          | LCL:                                       | UCL:                            | RPD:                                       | National La       | ab, SS,     | 57671                      |                                 |          |                            |        |
| 384868, Pacific Northwest  KPEVW1AD-SAMP Constituent List Uranium RDL:1.44E-01  KPEVW1AF-MS Constituent List:  KPVM11AA-BLK: Uranium RDL:1.44E-01  KPVM11AC-LCS: Uranium RDL:0.144343  KPVM11AD-LCS: Uranium RDL:0.144343  KPEVW1AD-SAMP Calc Info: Uncert Level (#s).: 2  | ug/L I ug/L I ug/L I                          | LCL:<br>LCL:<br>LCL:70                     | UCL:<br>UCL:<br>UCL:130         | RPD: RPD: RPD:20 RPD:20                    | National La       | ODRs: B     |                            |                                 |          |                            |        |
| 384868, Pacific Northwest  KPEVW1AD-SAMP Constituent Lis  Uranium RDL:1.44E-01  KPEVW1AF-MS Constituent List:  KPVM11AA-BLK:  Uranium RDL:1.44E-01  KPVM11AC-LCS:  Uranium RDL:0.144343  KPVM11AD-LCS:  Uranium RDL:0.144343  KPEVW1AD-SAMP Calc Info:  Uncert Level (#s).: 2  KPEVW1AF-MS Calc Info:  Uncert Level (#s).: 2                         | ug/L I ug/L I ug/L I ug/L I                   | LCL:<br>LCL:70<br>LCL:70<br>SaDt: Y        | UCL: UCL: UCL:130               | RPD: RPD: RPD:20 RPD:20 N Sci.             |                   |             |                            |                                 |          |                            |        |
| 384868, Pacific Northwest  KPEVWIAD-SAMP Constituent Lis Uranium RDL:1.44E-01 KPEVWIAF-MS Constituent List:  KPVM11AA-BLK: Uranium RDL:1.44E-01 KPVM11AC-LCS: Uranium RDL:0.144343 KPVM11AD-LCS: Uranium RDL:0.144343 KPVM11AD-SAMP Calc Info: Uncert Level (#s).: 2 KPEVW1AF-MS Calc Info:  | ug/L I ug/L I ug/L I ug/L I ug/L I            | LCL: LCL:70 LCL:70 SaDt: Y                 | UCL: UCL:130 UCL:130 Blk Subt.: | RPD: RPD:20 RPD:20 N Sci.1                 | Not.: Y           | ODRs: E     |                            |                                 |          |                            |        |
| 384868, Pacific Northwest  KPEVW1AD-SAMP Constituent Lis Uranium RDL:1.44E-01 KPEVW1AF-MS Constituent List:  KPVM11AA-BLK: Uranium RDL:1.44E-01 KPVM11AC-LCS: Uranium RDL:0.144343 KPVM11AD-LCS: Uranium RDL:0.144343 KPEVW1AD-SAMP Calc Info: Uncert Level (#s).: 2 KPEVW1AF-MS Calc Info: Uncert Level (#s).: 2 KPVM1AA-BLK: Uncert Level (#s).: 2 | ug/L I ug/L I ug/L I ug/L I ug/L I Decay to S | LCL: LCL:70 LCL:70 SaDt: Y SaDt: Y SaDt: Y | UCL: UCL:130 UCL:130 Blk Subt.: | RPD: RPD:20 RPD:20 N Sci.1 N Sci.1 N Sci.1 | Not.: Y           | ODRs: E     |                            |                                 |          |                            |        |

Page 2

7/16/2008 12:56:32 PM

## ICOC Fraction Transfer/Status Report ByDate: 7/17/2007, 7/21/2008, Batch: '8164620', User: \*ALL Order By DateTimeAccepting

| Q Batch Wor | rk Ord CurStat | us      | Accepting       |                       | Comments              |
|-------------|----------------|---------|-----------------|-----------------------|-----------------------|
| 8164620     |                |         |                 |                       |                       |
| AC          | Rev1C          | HarrisD | 6/25/2008 9:09  | :57 PM                |                       |
| SC          |                | wagarr  | IsBatched       | 6/13/2008 8:19:38 AM  | ICOC_RADCALC v4.8.32  |
| SC          |                | HarrisD | InPrep          | 6/25/2008 9:09:57 PM  | RL-PRP-004 REVISION 0 |
| SC          |                | BockJ   | InPrep2         | 7/10/2008 7:57:41 AM  | RL-KPA-001 REVISION 0 |
| SC          |                | BockJ   | Prep2C          | 7/15/2008 10:40:58 AM | RL-KPA-001 REVISION 0 |
| SC .        |                | NelsonT | Cnt1C           | 7/15/2008 3:28:38 PM  | RL-KPA-003 REVISION 0 |
| SC          |                | nortonj | Rev1C           | 7/16/2008 12:56:28 PM | RICH-RC-0002 REV 8    |
| AC .        |                | BockJ   | 7/10/2008 7:57: | 41                    |                       |
| 4 <i>C</i>  |                | BockJ   | 7/15/2008 10:40 | 0:58                  |                       |
| 4 <i>C</i>  |                | NelsonT | 7/15/2008 3:28: | 38 PM                 |                       |
| 4 <i>C</i>  |                | NelsonT | 7/15/2008 3:46: | 04 PM                 |                       |
| 4C          |                | nortoni | 7/16/2008 12:56 | 5:28                  |                       |

AC: Accepting Entry; SC: Status Change

TAL Richland Richland Wa.

Page 1

Grp Rec Cnt:6 ICOCFractions v4.8.33

| 5/30/2008 11:49:40 AM  | Sample Preparation  | /Analysis                                   | Balance Id:              |           |
|--|---|---|--------------------------|-----------|
| 5/30/2008 11:49:40 AM<br>384868, Pacific Northwest National Laboratory ,<br>Pacific Northwest National Lab   | 88 NO SAMPLE PREPARATION PER  | FORMED / DIRECT INJECTION                   | Pipet #:                 |           |
| Pacific Northwest National Lab   | EA Chromium, Hexavalent (7196A) 51 CLIENT: HANFORD                            |   | Sep1 DT/Tm Tech:         |           |
| AnalyDueDate: 07/14/2008  Batch: 8151262 WATER mg/L  | PM, Quote: SS   | 57671                                       |                          |           |
| Batch: 8151262 WATER mg/L<br>SEQ Batch, Test: None All Tests: 8151262 88EA,                                  | i w, quote. 33  | , 37071                                     | Sep2 DT/Tm Tech:         |           |
|  | 1100001000000   |   | Prep Tech:               |           |
| Work Order, Lot, Sample DateTime Amt/Unit Amt/   | Aliquot QC Tracer Count Unit Prep Date Time Min                               | Detector Count On   Of   Of   (24hr) Circle | CR Analyst,<br>Init/Date | Comments: |
| 1 KN3T7-1-AA   |   |   |                          |           |
| J8E290299-1-SAMP   |   |   |                          |           |
|  | :: VIAL20,500G #Containers: 2   | Scr:  | Alpha:                   | Beta:     |
| 2 KN3T7-1-AC-S   |   |   | 1                        |           |
| J8E290299-1-MS   |   |   |                          |           |
| 05/29/2008 13:14 AmtRec  | :: VIAL20,500G #Containers: 2   | Scr:  | Alpha:                   | Beta:     |
| 3 KN3T7-1-AD-D   |   |   |                          |           |
| J8E290299-1-MSD  |   |   |                          |           |
|  | c: VIAL20.500G #Containers: 2   | Scr:  | Alpha:                   | Beta:     |
| 4 KN3T7-1-AE-X   |   |   |                          |           |
| J8E290299-1-DUP  |   |   |                          |           |
|  | c: VIAL20,500G #Containers: 2   | Scr:  | Alpha:                   | Beta:     |
| 5 KN49G-1-AA-B   |   |   |                          |           |
| J8E300000-262-BLK  |   |   |                          |           |
|  |   | Scr:  | Alpha:                   | Beta:     |
| 6 KN49G-1-AC-C   |   |   |                          |           |
| J8E300000-262-LCS  |   |   |                          |           |
| 05/29/2008 13:14 AmiRec  |   | Scr.  | Alpha:                   | Beta:     |
| Affined  | G. #OOHQHIGIS. 1  | Jul.  | rapia.                   | Deid.     |
|  |   |   |                          |           |
|  |   |   |                          |           |
|  |   |   |                          |           |
|  |   |   |                          |           |
| TAI Richland Key In - Initial Amt. fi - Final Amt. di -<br>Richland Wa. pd - Prep Dt. r - Reference Dt. ec-E | Diluted Amt. s1 - Sep1, s2 - Sep2 Page 1 Enrichment Cell, ct-Cocktailed Added | tSV - Insufficient Volume                   | for Analysis             | WO Cnt: 6 |

| 5/30/2008 11:49:41  | AM            |          | -                          | Sample   | e Preparation   | /Analysis   | S      |                               | Balance Id:              |           |  |
|---|---------------|----------|----------------------------|--|-----------------|-------------|--------|-------------------------------|--------------------------|-----------|--|
|   |               |          | E                          | 38 NO SAMPLE PR<br>A Chromium, Hex<br>51 CLIENT: HANFO | avalent (7196A) | RFORMED / I | DIRECT | Pipet #:  Sep1 DT/Tm Tech:    |                          |           |  |
| AnalyDueDate: 07/   | 14/2008       |          |                            | SI CLIENT: HANFO                                       | טאט             |             |        | oepi L                        | Jirin recii.             |           |  |
| Batch: 8151262  |               | m        | g/L                        |  |                 |             |        | Sep2 [                        | OT/Tm Tech:              |           |  |
| SEQ Batch, Test: None   |               |          |                            |  |                 |             |        |                               | Prep Tech:               |           |  |
|   |               |          |                            |  |                 |             |        |                               | Trop toon.               |           |  |
| Work Order, Lot,<br>Sample DateTime                           | Tota<br>Amt/U |          | Initial Alique<br>Amt/Unit | ot QC Trace<br>Prep Date                               |                 | Detec       | ctor   | Count On Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comments: |  |
| Comments:   |               |          |                            |  |                 |             |        |                               |                          |           |  |
| All Clients for Bat<br>384868, Pacific<br>KN3T71AA-SAMP Const | Northwest     | st:      | Laboratory                 | Pacific Nor  | thwest National | Lab, SS,    | 57671  |                               |                          |           |  |
| KN3T71AD-MSD:   |               |          |                            |  |                 |             |        |                               |                          |           |  |
| KN49G1AA-BLK:   |               |          |                            |  |                 |             |        |                               |                          |           |  |
| KN49G1AC-LCS:   |               |          |                            |  |                 |             |        |                               |                          |           |  |
| KN3T71AA-SAMP Calc  | Info:         |          |                            |  |                 |             |        |                               |                          |           |  |
| Uncert Level  | -             | Decay to | SaDt: Y                    | Blk Subt.: N   | Sci.Not.: Y     | ODRs: B     | 3      |                               |                          |           |  |
| KN3T71AC-MS Calc In<br>Uncert Level                           |               | Decay t  | o SaDt: Y                  | Blk Subt.: N   | Sci.Not.: Y     | ODRs: B     | 1      |                               |                          |           |  |
| KN3T71AD-MSD:   | (#8).: 2      | Decay L  | o sabt. I                  | DIR DUDE N   | 501.11001.1     | 02.151      |        |                               |                          |           |  |
| Uncert Level  | (#s).: 2      | Decay t  | SaDt: Y                    | Blk Subt.: N   | Sci.Not.: Y     | ODRs: B     | 3      |                               |                          |           |  |
| KN49G1AA-BLK:   |               |          |                            |  |                 |             |        |                               |                          |           |  |
| Uncert Level  | (#s).: 2      | Decay t  | o SaDt: Y                  | Blk Subt.: N   | Sci.Not.: Y     | ODRs: B     | 3      |                               |                          |           |  |
| KN49G1AC-LCS:<br>Uncert Level                                 | (#s).: 2      | Decay t  | o SaDt: Y                  | Blk Subt.: N   | Sci.Not.: Y     | ODRs: B     | 3      |                               |                          |           |  |
|   |               |          |                            |  | Ap              | proved By   |        |                               | . Date:                  |           |  |
|   |               |          |                            |  |                 |             |        |                               |                          |           |  |
|   |               |          |                            |  |                 |             |        |                               |                          |           |  |
|   |               |          |                            |  |                 |             |        |                               |                          |           |  |

| /2008 3:51:52 PM Sample Preparation/Analysis                                |                             |   |                   |                                       |                                     | Balance Id:   |                                 |  |
|---|-----------------------------|---|-------------------|---------------------------------------|-------------------------------------|---|---------------------------------|--|
| 384868, Pacific Northwest National Labora<br>Pacific Northwest National Lab |                             | SAMPLE PREPAR                                 |                   | RMED / DIREC                          | TINJECTION                          | Pipet #:  |                                 |  |
| AnalyDueDate: 07/17/2008  |                             | hromium, Hexavalent (7196A)<br>LIENT: HANFORD |                   |                                       |                                     | p1 DT/Tm Tech:  |                                 |  |
|   | mg/L                        | PM,   | Quote: SS, 5      | Se                                    | p2 DT/Tm Tech:                      |   |                                 |  |
| SEQ Batch. Test: None   |                             |   |                   |                                       |                                     | Prep Tech:  |                                 |  |
|   | 1 1.25 1.45                 |   |                   | The second second second              |                                     |   |                                 |  |
| Work Order, Lot, Sample DateTime Total Amt/Unit                             | Initial Aliquot<br>Amt/Unit | QC Tracer<br>Prep Date                        | Count<br>Time Min | Detector                              | Count On   Off<br>(24hr) Circle     | CR Analyst,<br>Init/Date                                | Comments:                       |  |
| 1 KN78H-1-AA  |                             |   |                   |                                       |                                     |   |                                 |  |
| J8F020174-1-SAMP  | ·                           |   |                   |                                       |                                     |   |                                 |  |
| 06/02/2008 09:19  | AmtRec: VIAL20,500          | G #Containers: 2                              |                   |                                       | Scr:                                | Alpha:  | Beta:                           |  |
| 2 KN78H-1-AC-S  |                             |   |                   |                                       |                                     |   |                                 |  |
| J8F020174-1-MS  |                             |   |                   |                                       |                                     |   |                                 |  |
| <b></b>   | AmtRec: VIAL20,500          |   |                   |                                       | Scr:                                | Alpha:  | Beta:                           |  |
| 3 KN78H-1-AD-D  |                             |   |                   |                                       |                                     |   |                                 |  |
| J8F020174-1-MSD   |                             | <b>.</b>                                      |                   | · · · · · · · · · · · · · · · · · · · |                                     |   |                                 |  |
| <b>                                 </b>                                    | AmtRec: VIAL20,500          | OG #Containers: 2                             |                   |                                       | Scr:                                | Alpha:  | Beta:                           |  |
| 4 KN78H-1-AE-X  |                             |   |                   |                                       |                                     |   |                                 |  |
| J8F020174-1-DUP   |                             | 12.110.1/ 1 121 11 221                        |                   |                                       | No. 10                              | ***************************************                 |                                 |  |
| 06/02/2008 09:19  | AmtRec: VIAL20,500          |   |                   |                                       | Scr:                                | Alpha:  | Beta:                           |  |
| 5 KN8D1-1-AA-B  |                             |   |                   |                                       |                                     |   |                                 |  |
| J8F020000-426-BLK   |                             | 108000000000000000000000000000000000000       | *************     | ******************                    |                                     |   | ******************************* |  |
| 06/02/2008 09:19  | AmtRec:                     | #Containers: 1                                |                   |                                       | Scr:                                | ·Alpha:   | Beta:                           |  |
| 6 KN8D1-1-AC-C  |                             |   |                   |                                       |                                     |   |                                 |  |
| J8F020000-426-LCS   |                             |   | ***********       |                                       | . A A . B . B . B . B . B . B . B . | · 李嘉司 医原生性 可可以 医生性原因 计记录符号 化氯化物 化二氯化物 化二氯化物 化二氯化物 化二氯化物 |                                 |  |
| 06/02/2008 09:19  | AmtRec:                     | #Containers: 1                                |                   |                                       | Scr:                                | Alpha:  | Beta:                           |  |
|   |                             |   |                   |                                       |                                     |   |                                 |  |
|   |                             |   |                   |                                       |                                     |   |                                 |  |
|   |                             |   |                   |                                       |                                     |   |                                 |  |
|   |                             |   |                   |                                       |                                     |   |                                 |  |
| TAL Richland Key In Initial Amt. fi - F                                     | Final Amt, di · Diluted Am  | nt, s1 - Sep1, s2 · Sep2                      | 2 Page 1          | ISV ·                                 | Insufficient Volume for /           | Analysis  | WO Cnt: 6                       |  |
|   | rence Dt. ec-Enrichment     |   | -                 |                                       |                                     | , ,   | ICOC v4 8                       |  |

| 6/2/2008 3:51:53 PM                     |              |                             | Sample                                |                | Balance Id:  Pipet #:  Sep1 DT/Tm Tech: |                              |                  |           |  |  |  |
|---|--------------|-----------------------------|---------------------------------------|----------------|---|------------------------------|------------------|-----------|--|--|--|
|   |              |                             | 88 NO SAMPLE PR                       | CT INJECTION   |   |                              |                  |           |  |  |  |
| D                                       |              |                             | EA Chromium, Hexa<br>5I CLIENT: HANFO | Sen1           |   |                              |                  |           |  |  |  |
| AnalyDueDate: 07/17                     | 7/2008       |                             | SI OLILITI. HAM O                     | no             |   |                              |                  |           |  |  |  |
| Batch: 8154426<br>SEQ Batch, Test: None |              | mg/L                        |                                       |                |   | Sep2                         | Sep2 DT/Tm Tech: |           |  |  |  |
| SEG Daton, 18st. None                   |              |                             |                                       |                |   |                              | Prep Tech:       |           |  |  |  |
| Work Order, Lot,                        | Total        | I Initial Aliqu             |                                       |                | Detector                                | Count On Off                 | CR Analyst,      | Comments: |  |  |  |
| Sample DateTime                         | Amt/Ur       |                             |                                       |                | ld                                      | (24hr) Circle                | Init/Date        |           |  |  |  |
| Comments:                               |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| All Clients for Bato<br>384868, Pacific |              | National Laboratory         | Pacific Nort                          | hwest National | Lab, SS , 576                           | 71                           |                  |           |  |  |  |
| KN78H1AA-SAMP Consti                    | tuent Lis    |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| KN78H1AC-MS Constitu                    | ent List:    |                             |                                       |                |   |                              |                  |           |  |  |  |
| KN78H1AD-MSD:                           |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| KN8D11AA-BLK:                           |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| KN8D11AC-LCS:                           |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| KN78H1AA-SAMP Calc                      |              | Decay to SaDt: Y            | Blk Subt.: N                          | Sci.Not.: Y    | ODRs: B                                 |                              |                  |           |  |  |  |
| Uncert Level (#<br>KN78H1AC-MS Calc Inf |              | Decay to Sant: 1            | BIR SUDC.: N                          | SCI.NOC.1 I    | ODRS: B                                 | -                            |                  |           |  |  |  |
| Uncert Level (                          |              | Decay to SaDt: Y            | Blk Subt.: N                          | Sci.Not.: Y    | ODRs: B                                 |                              |                  |           |  |  |  |
| KN78H1AD-MSD:<br>Uncert Level (#        | s).: 2       | Decay to SaDt: Y            | Blk Subt.: N                          | Sci.Not.: Y    | ODRs: B                                 |                              |                  |           |  |  |  |
| KN8D11AA-BLK:<br>Uncert Level (         | kal • 2      | Decay to SaDt: Y            | Blk Subt.: N                          | Sci.Not.: Y    | ODRs: B                                 |                              |                  |           |  |  |  |
| KN8D11AC-LCS:                           |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| Uncert Level (                          | #s).: 2      | Decay to SaDt: Y            | Blk Subt.: N                          | Sci.Not.: Y    | ODRs: B                                 |                              |                  |           |  |  |  |
|   |              |                             |                                       | App            | roved By                                |                              | Date:            |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
|   |              |                             |                                       |                |   |                              |                  |           |  |  |  |
| TAI Richland Kov                        | to Initial A | mt fi - Final Amt di - Dili | ited Amt s1 - Sent s2                 | Sen2 Page 2    | ISV                                     | · Insufficient Volume for An | alveis           | WO Cnt: 6 |  |  |  |

pd - Prep Dt. r - Reference Dt. ec-Enrichment Cell. ct-Cocktailed Added

Richland Wa.

ICOC v4.8.

| 6/3/2008 5:15:05 PM  |   | Sample Pre   | eparation/A  | nalysis                          |   | Balance Id:                             |                         |  |  |
|--|---|--|--|----------------------------------|---|---|-------------------------|--|--|
| 384868, Pacific Northwest National<br>Pacific Northwest National Lab   |   | SAMPLE PREPARATION PERFORMED / DIRECT INJECTION comium, Hexavalent (7196A) |  |                                  |   | Pipet #:                                |                         |  |  |
| AnalyDueDate: 07/18/2008   | 5I CL   | ENT: HANFORD   |  |                                  | Se                                      | Sep1 DT/Tm Tech:                        |                         |  |  |
| Batch: 8155503 WATER<br>SEQ Batch, Test: None  | mg/L  | PM, Quote: SS , 57671  |  |                                  |   | Sep2 DT/Tm Tech:                        |                         |  |  |
|  |   | 1 (81)   |  | [[B] #3]B] B]B]                  |   | Prep Tech:                              |                         |  |  |
| Work Order, Lot, Sample DateTime Total Amt/Unit  | Initial Aliquot<br>Amt/Unit   | QC Tracer<br>Prep Date   | Count<br>Time Min  | Detector<br>Id                   | Count On   Off<br>(24hr) Circle         | CR Analyst,<br>Init/Date                | Comments:               |  |  |
| I KPAJ7-1-AA   |   |  |  |                                  |   | *****                                   |                         |  |  |
| J8F030292-1-SAMP<br>   | AmtRec: VIAL20,5000   |  | mar a maral in t in the state i |                                  | Scr:                                    | Alpha:                                  | Beta:                   |  |  |
| 2 KPAJ7-1-AC-S   |   |  |  |                                  |   |   |                         |  |  |
| J8F030292-1-MS   |   |  |  |                                  |   |   |                         |  |  |
| 06/03/2008 08:40   | AmtRec: VIAL20,5000   | G #Containers: 2   |  |                                  | Scr:                                    | Alpha:                                  | Bela:                   |  |  |
| 3 KPAJ7-1-AD-D   |   |  |  |                                  |   |   |                         |  |  |
| J8F030292-1-MSD  |   |  | ******************   | ~ MAMAGE NO SE SE SE SE SE SE SE | Scr:                                    | Alaba                                   | Pata                    |  |  |
| 06/03/2008 08:40<br>4 KPAJ7-1-AE-X   | AmtRec: VIAL20,5000   | G #Containers: 2   |  |                                  | Scr.                                    | Alpha:                                  | Beta:                   |  |  |
|  |   |  |  |                                  |   |   |                         |  |  |
| J8F030292-1-DUP  | 411 13 15 16 18 18 18 18 18 18 18 18 18 18 18 18 18                   |  |  |                                  | *************************************** | *************************************** |                         |  |  |
| 06/03/2008 08:40   | AmtRec: VIAL20,500  |  |  |                                  | Scr:                                    | Alpha:                                  | Beta:                   |  |  |
| 5 KPAJ9-1-AA KPCCSIAA  |   |  |  |                                  |   |   |                         |  |  |
| J8F030202-2-SAMP_ J8F 040  | 186 SKS 7/8/  | 8  |  |                                  |   |   |                         |  |  |
| 06/03/2008 12:40   | AmtRec, VIAL20,500  | G #Containers: 2   | දහා සහ සහ පැවැතිවලට සහ පැවැත්තුව ඒ සහ සහ ප්රේක් සහ පැවැත් සහ සම්   |                                  | Scr:                                    | Alpha:                                  | Beta:                   |  |  |
| 6 KPAKX-1-AA-B   |   |  |  |                                  |   |   |                         |  |  |
| J8F030000-503-BLK  |   |  |  |                                  |   |   |                         |  |  |
| and the management of the last of the first of the last of the las | #   | #Containers: 1   | 52 APQ \$1 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~   |                                  | Scr:                                    | Alpha:                                  | Beta:                   |  |  |
| 7 KPAKX-1-AC-C   |   |  |  |                                  |   |   |                         |  |  |
| J8F030000-503-LCS  |   |  |  |                                  |   |   |                         |  |  |
| 06/03/2008 08:40   | AmtRec:   | #Containers: 1   |  | ********                         | Scr:                                    | Alpha:                                  | Beta:                   |  |  |
|  |   |  |  |                                  |   |   |                         |  |  |
|  | t, fi - Final Amt, di - Diluted Am<br>r - Reference Dt, ec-Enrichment |  |  | ISV -                            | Insufficient Volume for A               | Analysis                                | WO Cnt: 7<br>ICOC v4.8. |  |  |

| 6/3/2008 5:15:05 PM                    |                |                                | Sample Preparation/Analysis   |                |          |            |                                 |                          | Balance Id: |  |  |  |
|--|----------------|--------------------------------|---|----------------|----------|------------|---------------------------------|--------------------------|-------------|--|--|--|
|  |                |                                | 88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION EA Chromium, Hexavalent (7196A) |                |          |            |                                 |                          | Pipet #:    |  |  |  |
|  |                | E                              |   |                |          |            |                                 |                          |             |  |  |  |
| AnalyDueDate: 07/1                     | 8/2008         |                                | 51 CLIENT: HANFO  | RD             |          |            | Sep                             | Sep1 DT/Tm Tech:         |             |  |  |  |
| Batch: 8155503                         |                | mg/L                           | mg/L  |                |          |            |                                 | Sep2 DT/Tm Tech:         |             |  |  |  |
| SEQ Batch, Test: None                  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
|  |                |                                |   |                |          |            | 10 HH H 11 H                    | Prep Tech:               |             |  |  |  |
| Work Order, Lot,<br>Sample DateTime    | Tota<br>Amt/U  |                                |   | Count          | Dete     | ector      | Count On   Off<br>(24hr) Circle | CR Analyst,<br>Init/Date | Comments:   |  |  |  |
| - 11                                   |                | ıı ı                           |   |                |          |            |                                 | П                        | 11          |  |  |  |
| Comments:                              |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
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|  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
| All Clients for Bato                   |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
| 384868, Pacific                        | Northwest      | National Laboratory            | Pacific Nort  | hwest National | Lab, SS  | , 57671    |                                 |                          |             |  |  |  |
| KPAJ71AA-SAMP Consti                   | ituent Li      | it:                            |   |                |          |            | *                               |                          |             |  |  |  |
| KPAJ71AC-MS Constitu                   | ent List       |                                |   |                |          |            |                                 |                          |             |  |  |  |
| KPAD/IAC-NS CONSCIEN                   | denc bibe      |                                |   |                |          |            |                                 |                          |             |  |  |  |
| KPAJ71AD-MSD:                          |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
| KPAKX1AA-BLK:                          |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
| KPAKX1AC-LCS:                          |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
| KPAJ71AA-SAMP Calc :                   | Info:          |                                |   |                |          |            |                                 |                          |             |  |  |  |
| Uncert Level (                         |                | Decay to SaDt: Y               | Blk Subt.: N  | Sci.Not.: Y    | ODRs:    | В          |                                 |                          |             |  |  |  |
| WPAJ71AC-MS Calc In:<br>Uncert Level ( |                | Decay to SaDt: Y               | Blk Subt.: N  | Sci.Not.: Y    | ODRs:    | В          |                                 |                          |             |  |  |  |
| KPAJ71AD-MSD:                          | ,              |                                |   |                |          |            |                                 |                          |             |  |  |  |
| Uncert Level (                         | #s).: 2        | Decay to SaDt: Y               | Blk Subt.: N  | Sci.Not.: Y    | ODRs:    | В          |                                 |                          |             |  |  |  |
| KPAKX1AA-BLK:<br>Uncert Level (:       | #91.: 2        | Decay to SaDt: Y               | Blk Subt.: N  | Sci.Not.: Y    | ODRs:    | В          |                                 |                          |             |  |  |  |
| KPAKX1AC-LCS:                          | ,              |                                |   |                |          |            |                                 |                          |             |  |  |  |
| Uncert Level (                         | #s).: 2        | Decay to SaDt: Y               | Blk Subt.: N  | Sci.Not.: Y    | ODRs:    | В          |                                 |                          |             |  |  |  |
|  |                |                                |   | App            | roved By |            |                                 | Date:                    |             |  |  |  |
|  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
|  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
|  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
|  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
|  |                |                                |   |                |          |            |                                 |                          |             |  |  |  |
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|  |                |                                |   |                |          |            |                                 |                          | 1110.0      |  |  |  |
| TAL Richland Key                       | In - Initial A | Amt. fi - Final Amt, di - Dilu | ted Amt, s1 - Sep1, s2  | - Sep2 Page 2  |          | ISV - Inst | ufficient Volume for A          | nalysis                  | WO Cnt: 7   |  |  |  |

ICOC v4.8.

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added